Upat Fixing Technology

Simple. Safe.

Upat

90 years of trusted quality and proven reliability

Simple. Safe. Upat - your strong partner for decades.

The Upat brand has stood for quality and reliability in fastening technology for over 90 years. Starting with hemp cords pressed into metal sleeves, we have earned the highest level of trust from users and craftsmen alike, establishing ourselves as pioneers in fastening technology ever since.

The Upat range features a coordinated selection of products focused on the heavy-duty sector. With extensive experience, proven reliability, and high quality, customer needs are met quickly and effectively.

At the core of the Upat range are steel anchors and chemical fastening systems - proudly "Made in Germany." Our tested quality and wide range of building authority approvals eliminate the need for time-consuming in-house testing.

These approvals confirm that Upat products can safely withstand even the highest loads. To complete the product range, this catalog also includes our comprehensive selection of nylon anchors and lightweight fasteners.

By combining our broad product range - designed to meet the core needs of the trade - with lean, digital processes, we are able to offer Upat fastening technology at highly competitive prices.

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Upat®

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Fixing selection

The right anchor for every requirement [1) 2) 3)]

			Test mark / approval										
			ETA Option 1 Concrete cracked	ETA Option 7 Concrete non-cracked	ETA Seismics	ETA masonry	ETA multiple fastening in concrete cracked	ETA multiple fastening in prestressed hollow core slab	ETA multiple fastening in masonry	ETA Subsequent reinforcement connection	Fire test	VdS CEA guidelines compliant	
Steel fixings	MAX		■	■	■						■	■	Page 17
	IMC			■									Page 20
	UHS		■	■	■						■	■	Page 23
	UCS		■	■	■						■	■	Page 26
	UNA						■				■	■	Page 29
	USA			■			■	■			■	■	Page 31
Chemical fixings	UPM 66		■	■							■		Page 36
	UPM 55		■	■	■					■	■		Page 38
	UPM 44		■	■	■	■				■	■		Page 41
	UPM 33		■	■		■					■		Page 46
	UPM 11												Page 51
	UKA3 Plus		■	■							■		Page 53
Frame fixings	URD						■		■		■		Page 66
	URDL						■		■		■		Page 69
	UFD												Page 72
Standard fixings	U												Page 75
	UVD II												Page 77
	UN												Page 79
Special fixings	UD												Page 84
	UG/UGM												Page 86
	UM												Page 88
	UGH												Page 90
	UGS												Page 92
	UK/UKH												Page 94
	UH/UHZ												Page 96
	UNH												Page 98
	UMA												Page 100
	UMD												Page 102
	URI												Page 104

1) Application recommendations may deviate from the conditions of the respective ETA. The suitable use of the anchors must be checked before installation.

2) Materials from our standard range. For details on strength, see ETA. Other material grades on request. Dowels supplied without screws, without material specification.

3) For details see respective ETA or test report.

Fixing selection

The right anchor for every requirement [1) 2) 3)]

		Building material				Material			Version							
		Concrete	Solid building material	Perfo-rated building material	Panel building materials	Stainless steel	Zink plated steel	Steel hot-dip galva-nized	External thread	Internal thread	Hexagon head	Coun-tersunk head	Hook/ eyelet	Nail head/ flat head/ lenticular head	Upat DesignFiX dimen-sioning software	
Steel fixings	MAX	■				■	■		■						■	Page 17
	IMC	■				■	■		■						■	Page 20
	UHS	■				■	■		■	■	■	■			■	Page 23
	UCS	■					■				■	■			■	Page 26
	UNA	■				■	■		■				■	■		Page 29
	USA	■				■	■			■					■	Page 31
Chemical fixings	UPM 66	■				■	■		■						■	Page 36
	UPM 55	■				■	■	■	■	■					■	Page 38
	UPM 44	■	■	■		■	■	■	■	■					■	Page 41
	UPM 33	■	■	■		■	■	■	■	■					■	Page 46
	UPM 11	■	■	■		■	■	■	■	■						Page 51
	UKA3 Plus	■				■	■	■	■	■					■	Page 53
Frame fixings	URD	■	■			■	■				■	■				Page 66
	URDL	■	■			■	■				■	■				Page 69
	UFD	■	■											■		Page 72
Standard fixings	U	■	■													Page 75
	UVD II	■	■	■												Page 77
	UN	■	■				■					■				Page 79
Special fixings	UD				■											Page 84
	UG/UGM				■											Page 86
	UM	■	■							■						Page 88
	UGH	■	■													Page 90
	UGS		■										■			Page 92
	UK/UKH				■								■	■		Page 94
	UH/UHZ				■								■	■		Page 96
	UNH	■	■													Page 98
	UMA	■	■		■											Page 100
	UMD	■	■		■					■						Page 102
	URI	■	■										■			Page 104

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Trade assignment

The right anchor for every trade [1] [2]

				Steel construction							
											
				Balcony railing	Stair railing	Steel beams	Bridge railing	Formwork support	Steel construction	High rack	
Steel fixings	MAX		zp/R	■	■	■	■		■	■	Page 17
	IMC		zp/R								Page 20
	UHS		zp/R	■	■					■	Page 23
	UCS		zp		■			■			Page 26
	UNA		zp/R	■	■	■				■	Page 29
	USA		zp/R								Page 31
Chemical fixings	UPM 66		zp/R	■	■	■	■		■	■	Page 36
	UPM 55		zp/R/hdg			■	■		■		Page 38
	UPM 44		zp/R/hdg	■	■	■	■		■	■	Page 41
	UPM 33		zp/R/hdg	■	■	■	■				Page 46
	UPM 11		zp/R/hdg								Page 51
	UKA3 Plus		zp/R/hdg	■	■	■				■	Page 53
Frame fixings	URD		zp/R								Page 66
	URDL		zp/R								Page 69
	UFD		zp								Page 72
Standard fixings	U		-								Page 75
	UVD II		-								Page 77
	UN		zp								Page 79
Special fixings	UD		-								Page 84
	UG/UGM		-								Page 86
	UM		-								Page 88
	UGH		-								Page 90
	UGS		-								Page 92
	UK/UKH		-								Page 94
	UH/UHZ		-								Page 96
	UNH		-								Page 98
	UMA		-								Page 100
	UMD		-								Page 102
	URI		-								Page 104

[1] Application recommendations may deviate from the conditions of the respective ETA. The suitable use of the anchors must be checked before installation.

[2] Zink plated steel (zp), hot-dip galvanized steel (hdg), stainless steel (R). Materials from our standard range. For details on strength, see ETA. Other material grades on request. Anchors supplied without screws, without material specification.

Trade assignment

The right anchor for every trade [1] [2]

				Manufacturer Steel goods						
										
				Bicycle stand	Bench seat	Barrier	Garbage can	Fire ladder	Stadium seats	
Steel fixings	MAX		zp/R					■		Page 17
	IMC		zp/R	■	■	■			■	Page 20
	UHS		zp/R	■	■	■			■	Page 23
	UCS		zp						■	Page 26
	UNA		zp/R							Page 29
	USA		zp/R				■		■	Page 31
Chemical fixings	UPM 66		zp/R							Page 36
	UPM 55		zp/R/hdg							Page 38
	UPM 44		zp/R/hdg					■		Page 41
	UPM 33		zp/R/hdg							Page 46
	UPM 11		zp/R/hdg							Page 51
	UKA3 Plus		zp/R/hdg			■				Page 53
Frame fixings	URD		zp/R							Page 66
	URDL		zp/R							Page 69
	UFD		zp							Page 72
Standard fixings	U		-							Page 75
	UVD II		-							Page 77
	UN		zp							Page 79
Special fixings	UD		-							Page 84
	UG/UGM		-				■			Page 86
	UM		-							Page 88
	UGH		-							Page 90
	UGS		-							Page 92
	UK/UKH		-							Page 94
	UH/UHZ		-							Page 96
	UNH		-							Page 98
	UMA		-							Page 100
	UMD		-							Page 102
	URI		-							Page 104

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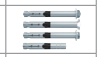
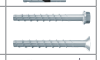
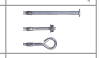
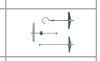
Trade assignment

The right anchor for every trade [1] [2]

				Wood construction					Plant engineering			
												
				Support legs	Beam anchoring	Roof constructions	Windows	Facade construction	Silos	Pumps	Lifting platforms	
Steel fixings	MAX		zp/R	■	■			■	■	■		Page 17
	IMC		zp/R	■						■		Page 20
	UHS		zp/R	■					■	■		Page 23
	UCS		zp		■			■	■	■		Page 26
	UNA		zp/R									Page 29
	USA		zp/R									Page 31
Chemical fixings	UPM 66		zp/R						■	■	■	Page 36
	UPM 55		zp/R/hdg	■	■				■	■		Page 38
	UPM 44		zp/R/hdg	■	■	■	■	■	■	■	■	Page 41
	UPM 33		zp/R/hdg	■	■	■	■	■	■	■		Page 46
	UPM 11		zp/R/hdg									Page 51
	UKA3 Plus		zp/R/hdg	■	■				■	■	■	Page 53
Frame fixings	URD		zp/R		■		■	■				Page 66
	URDL		zp/R		■		■	■				Page 69
	UFD		zp				■					Page 72
Standard fixings	U		-									Page 75
	UVD II		-									Page 77
	UN		zp									Page 79
Special fixings	UD		-									Page 84
	UG/UGM		-									Page 86
	UM		-									Page 88
	UGH		-									Page 90
	UGS		-									Page 92
	UK/UKH		-									Page 94
	UH/UHZ		-									Page 96
	UNH		-									Page 98
	UMA		-									Page 100
	UMD		-									Page 102
	URI		-									Page 104

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Trade assignment

The right anchor for every trade [1] [2]

				Electrician								
												
				Cable support systems	Luminaire strips	Screen consoles	Satellite antennas	Cable ducts	Wall lamp	Speaker	Electrical installation	
Steel fixings	MAX		zp/R	■	■		■					Page 17
	IMC		zp/R									Page 20
	UHS		zp/R									Page 23
	UCS		zp	■	■			■			■	Page 26
	UNA		zp/R	■				■				Page 29
	USA		zp/R	■	■							Page 31
Chemical fixings	UPM 66		zp/R									Page 36
	UPM 55		zp/R/hdg									Page 38
	UPM 44		zp/R/hdg				■					Page 41
	UPM 33		zp/R/hdg				■					Page 46
	UPM 11		zp/R/hdg		■	■						Page 51
	UKA3 Plus		zp/R/hdg	■								Page 53
Frame fixings	URD		zp/R	■	■	■		■				Page 66
	URDL		zp/R	■	■	■		■				Page 69
	UFD		zp									Page 72
Standard fixings	U		-			■						Page 75
	UVD II		-			■						Page 77
	UN		zp					■				Page 79
Special fixings	UD		-						■	■		Page 84
	UG/UGM		-						■	■		Page 86
	UM		-			■						Page 88
	UGH		-									Page 90
	UGS		-									Page 92
	UK/UKH		-							■		Page 94
	UH/UHZ		-						■			Page 96
	UNH		-									Page 98
	UMA		-								■	Page 100
	UMD		-						■	■		Page 102
	URI		-									Page 104

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Trade assignment

The right anchor for every trade [1] [2]

				Sanitary-Heating-Air Conditioning-Ventilation								
												
				Pipe fastening	Pipe routes	Ventilation ducts	Radiators	Sanitary ceramics	Shower cabins	Air conditioners	Mirror cabinet	
Steel fixings	MAX		zp/R	■	■	■				■		Page 17
	IMC		zp/R									Page 20
	UHS		zp/R									Page 23
	UCS		zp	■	■						■	Page 26
	UNA		zp/R									Page 29
	USA		zp/R	■	■	■						Page 31
Chemical fixings	UPM 66		zp/R									Page 36
	UPM 55		zp/R/hdg									Page 38
	UPM 44		zp/R/hdg	■	■	■	■	■	■	■		Page 41
	UPM 33		zp/R/hdg	■	■	■	■	■	■	■		Page 46
	UPM 11		zp/R/hdg									Page 51
	UKA3 Plus		zp/R/hdg									Page 53
Frame fixings	URD		zp/R								■	Page 66
	URDL		zp/R								■	Page 69
	UFD		zp									Page 72
Standard fixings	U		-								■	Page 75
	UVD II		-								■	Page 77
	UN		zp									Page 79
Special fixings	UD		-									Page 84
	UG/UGM		-									Page 86
	UM		-									Page 88
	UGH		-									Page 90
	UGS		-									Page 92
	UK/UKH		-								■	Page 94
	UH/UHZ		-									Page 96
	UNH		-									Page 98
	UMA		-									Page 100
	UMD		-									Page 102
	URI		-									Page 104

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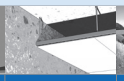
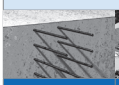
Trade assignment

The right anchor for every trade [1] [2]

				Carpenter					Special		
											
				Door frame	Winter gardens	Ceiling suspension	Handrails	Wall shelves	Reinforcing steel	Underwater application	
Steel fixings	MAX		zp/R		■		■				Page 17
	IMC		zp/R								Page 20
	UHS		zp/R								Page 23
	UCS		zp								Page 26
	UNA		zp/R			■					Page 29
	USA		zp/R			■					Page 31
Chemical fixings	UPM 66		zp/R								Page 36
	UPM 55		zp/R/hdg						■	■	Page 38
	UPM 44		zp/R/hdg		■				■		Page 41
	UPM 33		zp/R/hdg		■						Page 46
	UPM 11		zp/R/hdg								Page 51
	UKA3 Plus		zp/R/hdg								Page 53
Frame fixings	URD		zp/R	■		■	■	■			Page 66
	URDL		zp/R	■		■	■	■			Page 69
	UFD		zp	■							Page 72
Standard fixings	U		-					■			Page 75
	UVD II		-					■			Page 77
	UN		zp								Page 79
Special fixings	UD		-								Page 84
	UG/UGM		-								Page 86
	UM		-					■			Page 88
	UGH		-								Page 90
	UGS		-								Page 92
	UK/UKH		-								Page 94
	UH/UHZ		-					■			Page 96
	UNH		-								Page 98
	UMA		-								Page 100
	UMD		-								Page 102
	URI		-								Page 104

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Trade assignment

The right anchor for every trade [1] [2]

				Further applications								
												
				Curtain pole	Metal bracket	Scaffolding anchoring	Wall cupboard	Mailbox	Awnings	Canopy roof	Carport	
Steel fixings	MAX		zp/R							■	■	Page 17
	IMC		zp/R								■	Page 20
	UHS		zp/R							■		Page 23
	UCS		zp									Page 26
	UNA		zp/R									Page 29
	USA		zp/R									Page 31
Chemical fixings	UPM 66		zp/R									Page 36
	UPM 55		zp/R/hdg									Page 38
	UPM 44		zp/R/hdg						■	■	■	Page 41
	UPM 33		zp/R/hdg							■	■	Page 46
	UPM 11		zp/R/hdg									Page 51
	UKA3 Plus		zp/R/hdg								■	Page 53
Frame fixings	URD		zp/R				■					Page 66
	URDL		zp/R				■					Page 69
	UFD		zp									Page 72
Standard fixings	U		-					■				Page 75
	UVD II		-					■				Page 77
	UN		zp					■				Page 79
Special fixings	UD		-		■			■				Page 84
	UG/UGM		-									Page 86
	UM		-	■	■							Page 88
	UGH		-			■						Page 90
	UGS		-			■						Page 92
	UK/UKH		-		■						■	Page 94
	UH/UHZ		-	■			■					Page 96
	UNH		-									Page 98
	UMA		-									Page 100
	UMD		-									Page 102
	URI		-									Page 104

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Mortar finder

The right mortar for every requirement [1]

		UPM 66	UPM 55	UPM 44	UPM 33	UPM 33 Express	UPM 11	UKA3 PLUS
Application	Concrete	■	■	■	■	■	□	■
	Masonry			■	■	■	□	
	Reinforcement connection		■	■				
	Seismics		■	■				
	Fire test		■	■	■	■		■
	Hammer drilling	■	■	■	■	■	□	■
	Diamond drilling		■					
	Hollow drilling	■	■	■	□	□		■
	Without borehole cleaning							■
	Water-filled borehole		■	■	□	□		■
	Underwater		□					
System component	Bonded anchor UHB-I	■						
	Anchor rod ASTA		■	■	■	■	□	■
	Anchor rod UPM-A		■	■	■	■	□	
	Internally threaded anchor IST		■	■	■	■	□	■
	Internally threaded anchor UPM-I		□	■	■	■	□	
	Sieve sleeve UPM-SH			■	■	■	□	
	Commercially available threaded rods [2]		■	■	■	■	□	
Load ranges [kN] [3]	Concrete Tensile load	6,6-43,5	5-150,1	3,9-150,1	3,4-150,1	3,4-150,1		3,9-61
	Concrete shear load	7,8-80,6	5,1-90,2	6-90,2	2,9-90,2	2,9-90,2		5,1-56,8
	Masonry Tensile load			0,34-3,43	0,54-3,43	0,54-3,43	0,6-1,7	
	Masonry shear load			0,26-3,28	0,43-3,29	0,43-3,29	0,6-1,7	
Durability up to [months]	Cartridge professional (360/390ml)	24	36	24	24	15	15	
	Cartridge standard (300ml)			12	12	15	12	
	Cartridge compact (150ml)			12	12			
	Glass cartridge							36
Temperature in the anchorage base and curing time tcure [minutes] [4][5]	-15°C bis -10°C					720		1800
	-10°C bis -5°C					480		960
	-5°C bis 0°C	360		1440	1440	180		600
	0°C bis +5°C	180		180	180	180	360	45
	+5°C bis +10°C	90	2400	90	90	50	180	30
	+10°C bis +20°C	90	1080	60	60	30	120	20
	+20°C bis +30°C	35	600	45	45		60	5
	+30°C bis +40°C	20	300	35	35		30	3
	> +40°C	12						
Temperature of the mortar and processing time t_{work} [minutes]	-5°C bis 0°C					5		
	0°C bis +5°C			13	13	5		
	+5°C bis +10°C	15	120	9	9	3	15	
	+10°C bis +20°C	15	30	5	5	1	8	
	+20°C bis +30°C	6	14	4	4		5	
	+30°C bis +40°C	4	7	2	2		3	
	> +40°C	2						

[1] The details of the entire European Technical Assessment must be observed and checked for the specific application.

[2] Handelsübliche Gewindestangen mit Prüfzeugnis 3.1 und Material gemäß ETA.

[3] For details, see the respective load table.

[4] In wet concrete or water-filled drill holes, the curing times must be doubled. Observe drill hole cleaning according to ETA.

[5] The temperature in the concrete must not fall below the specified minimum value during the curing of the mortar. Minimum cartridge temperature +5°C. Minimum cartridge temperature (UKA3 PLUS) -15°C.

Legend:

■ — **Building authority approved**

□ — **Suitable**

Dimensioning Software

Design calculations made simple and safe.

The advantages of DesignFiX at a glance:
DesignFiX is the ideal solution for the professional design of various fastening systems. Whether you're a planner, structural engineer, or craftsman, DesignFiX provides reliable support for your project designs. Featuring a modular structure, the software can be used for a wide range of applications. This user-friendly program allows anchors and fastenings to be designed and dimensioned easily and flexibly. By incorporating relevant international standards, DesignFiX meets all requirements for global use.

Safe and reliable
DesignFiX detects incorrect entries related to geometric conditions and offers appropriate correction suggestions. This minimizes processing time. The verifiable printout allows you to review every calculation step in the program, giving you confidence that your design results are complete and verifiable.

Clear and flexible
You can choose between tabular data entry or direct input in the 3D display. The graphic can be easily rotated, panned, tilted, and zoomed 360° using a mouse or touch controls. DesignFiX continuously displays the status of anchorage utilization and the geometric boundary conditions.

International
DesignFiX incorporates key design standards and regulations, making it suitable for use worldwide. All loads and dimensions can be displayed and processed in either metric or imperial units.

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Steel fixings

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Concrete screw UCS ..... Page 26

Nail anchor UNA ..... Page 29

Drop-in anchor USA ..... Page 31

Accessories steel anchors ..... Page 34

Bolt anchor MAX

Strong express anchor bolt for a wide range of applications.
Approved for concrete, seismic, and fire protection.

Description

The Upat express anchor bolt MAX is the master of its class in the realm of bolt anchors. This steel anchor is particularly suitable for fastening medium to heavy loads in cracked and uncracked concrete as well as dense natural stone. The Upat express anchor bolt MAX is commonly used for fastening balcony railings, stair railings and steel beams, for example.

Characteristics

- **Certification/Approval:** ETA Option 1 cracked concrete, ETA Option 7 uncracked concrete, ETA seismic, fire test, VdS CEA guidelines compliant
- **Load Range:** Tension load 2.6-23.4 kN, shear load 7.8-60.7 kN
- **Material:** Stainless Steel (R), zinc plated steel (zp)
- **Variant:** Standard, short (K), large washer (GS)
- **Feature:** Thread M8-M20, usable length 10-300mm
- **Accessories:** Blow-out pump UPM AB

Applications

- Balcony railings
- Stair railings
- Steel beams
- Support feet
- Bridge railings
- High racks
- Stadium seats
- Beam anchorage
- Facade construction
- Silos

Advantages

- **Comprehensive approval package:** ETA approval Option 1 for concrete, seismic, as well as fire resistance and sprinkler systems
- **High load level:** Due to the optimal interaction of expansion clip properties and cone area
- **Flexible installation:** Variable anchorage depths enable versatile use of the anchor bolts
- **Near-edge fastening:** The unit of cone and expansion clip allows for minimal edge and axial distances

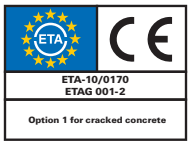
Materials

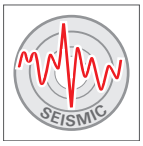
Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked

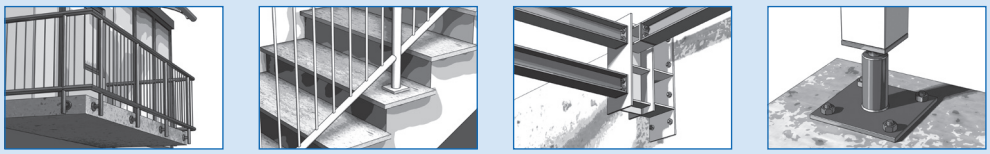
Also suitable for:

- Concrete C80/95
- Natural stone with dense structure

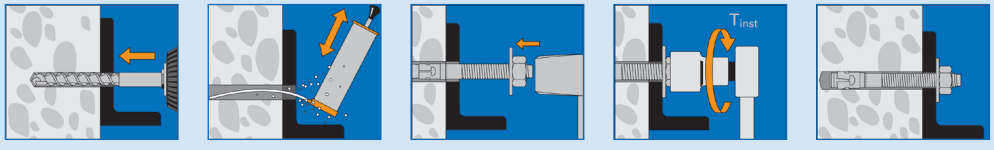




Application examples



Assembly



Straight to the product

upat.com/en-max

Bolt anchor MAX

Product variants

Name	Art.-No. (zp)	Art.-No. (R)	Anchor length	Drill diameter	Thread	Instal-lation torque	Max. usable length $h_{ef,stand.}$/ $h_{ef,min.}$	Min. drill hole depth for through fixings	Width across nut	Seismic-Approval	Anchoring depth $h_{ef,max}$/ $h_{ef,min}$	Fire resist-ance	ETA approval	VDS approval	Sales unit (zp)	Sales unit (R)
BOX MAX 10/10	-	547672	-	-	-	-	-	-	-	-	-	-	-	-	-	150
BOX MAX 12/10	547675	547674	-	-	-	-	-	-	-	-	-	-	-	-	100	100
BOX MAX 10/10 + 12/10	-	547677	-	-	-	-	-	-	-	-	-	-	-	-	-	140
MAX 8/10/75	509071	508992	75	8	M8	20	10 / 20	65	13	C1	45 / 35	R120	Yes	Yes	100	50
MAX 8/30/95	509072	508993	95	8	M8	20	30 / 40	85	13	C1	45 / 35	R120	Yes	Yes	100	50
MAX 8/50/115	509073	508994	115	8	M8	20	50 / 60	105	13	C1	45 / 35	R120	Yes	Yes	100	50
MAX 10/10/95	508977	508995	95	10	M10	45	10 / 30	85	17	C1 / C2	60 / 40	R120	Yes	Yes	50	50
MAX 10/100/185	508981	508999	185	10	M10	45	100 / 120	175	17	C1 / C2	60 / 40	R120	Yes	Yes	50	50
MAX 10/20/105	508978	508996	105	10	M10	45	20 / 40	95	17	C1 / C2	60 / 40	R120	Yes	Yes	50	50
MAX 10/30/115	508979	508997	115	10	M10	45	30 / 50	105	17	C1 / C2	60 / 40	R120	Yes	Yes	50	50
MAX 10/50/135	508980	508998	135	10	M10	45	50 / 70	125	17	C1 / C2	60 / 40	R120	Yes	Yes	50	50
MAX 10/80/165	521265	-	165	10	M10	45	80 / 100	155	17	C1 / C2	60 / 40	R120	Yes	Yes	40	-
MAX 12/10/110	508982	509000	110	12	M12	60	10 / 30	100	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 12/20/120	508983	509001	120	12	M12	60	20 / 40	110	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 12/30/130	508984	509002	130	12	M12	60	30 / 50	120	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 12/50/150	508985	509003	150	12	M12	60	50 / 70	140	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 12/100/200	508986	509004	200	12	M12	60	100 / 120	190	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 12/120/220	512357	-	220	12	M12	60	120 / 140	210	19	C1 / C2	70 / 50	R120	Yes	Yes	20	-
MAX 12/160/260	512358	-	260	12	M12	60	160 / 180	250	19	-	70 / 50	R120	Yes	Yes	10	-
MAX 12/200/300	512359	-	300	12	M12	60	200 / 220	290	19	-	70 / 50	R120	Yes	Yes	10	-
MAX 12/80/180	521266	-	180	12	M12	60	80 / 100	170	19	C1 / C2	70 / 50	R120	Yes	Yes	20	-
MAX 16/25/148	508987	509005	148	16	M16	110	25 / 45	135	24	C1 / C2	85 / 65	R120	Yes	Yes	20	20
MAX 16/50/173	508988	509006	173	16	M16	110	50 / 70	160	24	C1 / C2	85 / 65	R120	Yes	Yes	20	20
MAX 16/100/223	508989	521268	223	16	M16	110	100 / 120	210	24	C1 / C2	85 / 65	R120	Yes	Yes	10	10
MAX 16/160/283	512361	-	283	16	M16	110	160 / 180	270	24	C1 / C2	85 / 65	R120	Yes	Yes	10	-
MAX 16/200/323	512362	-	323	16	M16	110	200 / 220	310	24	-	85 / 65	R120	Yes	Yes	10	-
MAX 16/250	512363	-	373	16	M16	110	250 / 270	360	24	-	85 / 65	R120	Yes	Yes	10	-
MAX 16/300/423	512364	-	423	16	M16	110	300 / 320	410	24	-	85 / 65	R120	Yes	Yes	10	-
MAX 20/30/172	508990	521269	172	20	M20	200	30	155	30	C1 / C2	100	R120	Yes	Yes	10	10
MAX 20/60/202	521267	521270	202	20	M20	200	60	185	30	C1 / C2	100	R120	Yes	Yes	10	10
MAX 8/10/75 GS	535283	535295	75	8	M8	20	10 / 20	65	13	C1	-	R120	Yes	Yes	50	50
MAX 8/30/95 GS	535284	535296	95	8	M8	20	30 / 40	85	13	C1	-	R120	Yes	Yes	50	50
MAX 10/10/95 GS	535285	535297	95	10	M10	45	10 / 30	85	17	C1 / C2	60 / 40	R120	Yes	Yes	50	50
MAX 10/30/115 GS	535286	535298	115	10	M10	45	30 / 50	105	17	C1 / C2	60 / 40	R120	Yes	Yes	25	50
MAX 12/30/130 GS	535289	535300	130	12	M12	60	30 / 50	120	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 12/100/200 GS	535291	-	200	12	M12	60	100 / 120	190	19	C1 / C2	70 / 50	R120	Yes	Yes	20	-
MAX 12/120/220 GS	535292	-	220	12	M12	60	120 / 140	210	19	C1 / C2	70 / 50	R120	Yes	Yes	20	-
MAX 12/10/110 GS	535287	535299	110	12	M12	60	10 / 30	100	19	C1 / C2	70 / 50	R120	Yes	Yes	20	20
MAX 16/160/283 GS	535293	535302	283	16	M16	110	160 / 180	270	24	C1 / C2	85 / 65	R120	Yes	Yes	10	4
MAX 16/200/323 GS	535294	-	323	16	M16	110	200 / 220	310	24	-	85 / 65	R120	Yes	Yes	10	-
MAX 12/160/260 GS	-	535301	260	12	M12	60	160 / 180	250	19	-	70 / 50	R120	Yes	Yes	-	20
MAX 10/10/75 K	535303	535307	75	10	M10	45	10	65	17	C1	40	R120	Yes	Yes	50	50
MAX 10/20/85 K	535304	535308	85	10	M10	45	20	75	17	C1	40	R120	Yes	Yes	25	50
MAX 12/10/90 K	535305	535309	90	12	M12	60	10	80	19	C1	50	R120	Yes	Yes	20	20
MAX 12/20/100 K	535306	535310	100	12	M12	60	20	90	19	C1	50	R120	Yes	Yes	20	20
MAX 10/10/75 K GS	535314	-	75	10	M10	45	10	65	17	C1	40	R120	Yes	Yes	50	-

Stainless steel (R/A4): For fastening outdoors or in damp rooms
Zink plated steel (zp): For fastening in dry indoor areas
Short (K): The short version of the bolt anchor reduces the drill hole depth and the risk of hitting reinforcement, enabling quick installation while saving costs
Large washer (GS): The large washer protects the surface of the attachment and prevents cutting into wood.

Bolt anchor MAX

Load table

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25
For the design the complete current assessment ETA-10/0170 has to be considered.

Type	Material / surface[2]	Effective anchor-agedepth	Minimum-member thickness	Installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})				Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
		h_{ef}	h_{min}	T_{inst}	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]	[kN]	[kN]	[mm]	[mm]
MAX 8	zp	35	80	20	2.6	7.8	35	40	4.9	7.8	40	40
	zp	45	90	20	3.8	7.8	35	40	6.7	7.8	40	40
	R	35	80	20	2.6	9.5	35	40	4.9	9.6	40	40
	R	45	90	20	3.8	9.6	35	40	6.7	9.6	40	40
MAX 10	zp	40	90	45	4.1	12.2	40	45	5.9	12.2	40	45
	zp	60	110	45	6.2	12.2	40	45	9.5	12.2	40	45
	R	40	90	45	4.1	13.3	40	45	5.9	15.1	40	45
	R	60	110	45	6.2	15.1	40	45	9.5	15.1	40	45
MAX 12	zp	50	100	60	5.8	17.5	50	55	8.3	17.5	50	55
	zp	70	120	60	9.5	17.5	50	55	10.5	17.5	50	55
	R	50	100	60	5.8	18.6	50	55	8.3	21.9	50	55
	R	70	120	60	9.5	21.9	50	55	10.5	21.9	50	55
MAX 16	zp	65	140	110	8.6	31.4	60	65	12.3	31.4	65	65
	zp	85	140	110	12.9	31.4	60	65	18.4	31.4	65	65
	R	65	140	110	8.6	25.8	60	65	12.3	36.8	65	65
	R	85	140	110	12.9	38.6	60	65	18.4	39.9	65	65
MAX 20	zp	100	170	200	16.4	42.6	95	85	23.4	46.5	95	95
	R	100	170	200	16.4	42.6	95	85	23.4	60.7	95	95

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interior stainless steel (R) and exterior conditions, e.g. material 1.4362, 1.440

[3] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor design software DesignFiX.

Bolt anchor IMC

Affordable express anchor bolt for a secure hold.
Approved for concrete (uncracked).

Description

The Upat express anchor bolt IMC is a true powerhouse and a cost-effective alternative among bolt anchors. This steel anchor is particularly suitable for fastening medium to heavy loads in uncracked concrete and dense natural stone. The express anchor bolt IMC is commonly used for fastening barriers, benches and pumps, for example.

Characteristics

- **Certification/Approval:** ETA Option 7 Concrete uncracked
- **Load Range:** Tension load 2.9-25.2 kN, shear load 6.9-38.6 kN
- **Material:** Stainless Steel (R), zinc plated steel (zp)
- **Variant:** Standard, Short (K), large washer (GS)
- **Feature:** Thread M6-M20, usable length 5-300mm
- **Accessories:** Blow-out pump UPM AB

Applications

- Bike racks
- Benches
- Barrier
- Support feet
- Stadium seats
- Pumps

Advantages

- **Secure anchoring:** ETA approval Option 7. Versatile use for secure anchoring in uncracked concrete
- **Near-edge fastening:** The unit of cone and expansion clip allows for minimal edge and axial distances
- **Easy installation:** Shaft with optimized diameter for low insertion energy.
- **Protected thread:** Pronounced insertion pin protects the thread from damage during installation

Materials

Approved for:

- Concrete C20/25 to C50/60, uncracked

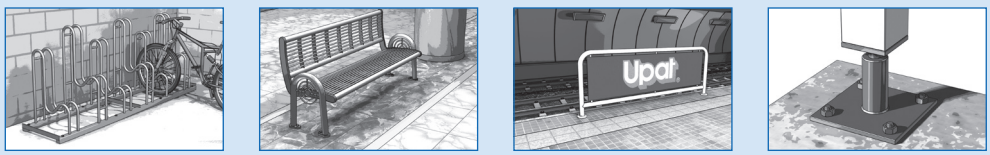
Also suitable for:

- Concrete C12/15
- Natural stone with dense structure

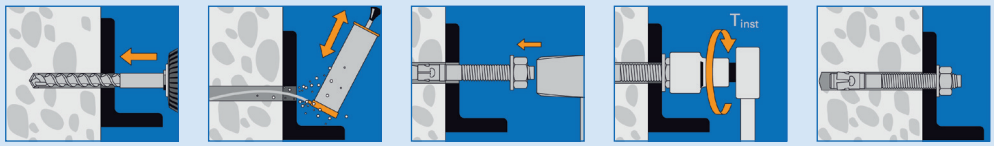
EDELSTAHL Rostfrei
INOX STAINLESS STEEL

ETA-10/0169
ETAG 001-2
Option 7 for non-cracked concrete

Application examples



Assembly



Straight to the product

upat.com/en-imc

Upat

Bolt anchor IMC

Product variants

Name	Art.-No. (zp)	Art.-No. (R)	Anchor length	Drill diameter	Thread	Installation torque	Max. usable length h_{ef},stand./ h_{ef},min.	Min. drill hole depth for through fixings	Width across nut	Anchoring depth h_{ef},max/ h_{ef},min	ETA approval	Sales unit (zp)	Sales unit (R)
IMC 6/10/55	509007	509033	55	6	M6	4	10 / -	50	10	35 / -	Yes	100	100
IMC 8/50/111	509012	509037	110	8	M8	15	50 / 60	106	13	40 / 30	Yes	100	100
IMC 8/100/161	509013	-	160	8	M8	15	100 / 110	156	13	40 / 30	Yes	50	-
IMC 8/5/66	509008	-	65	8	M8	15	5 / 15	61	13	40 / 30	Yes	100	-
IMC 8/10/71	509009	509035	70	8	M8	15	10 / 20	66	13	40 / 30	Yes	100	100
IMC 8/20/81	509010	-	80	8	M8	15	20 / 30	76	13	40 / 30	Yes	100	-
IMC 8/30/91	509011	509036	90	8	M8	15	30 / 40	86	13	40 / 30	Yes	100	100
IMC 10/10/86	509014	509039	85	10	M10	30	10 / 20	78	17	40 / 30	Yes	50	50
IMC 10/20/96	509015	509040	95	10	M10	30	20 / 30	88	17	40 / 30	Yes	50	50
IMC 10/30/106	509016	509041	105	10	M10	30	30 / 40	98	17	50 / 40	Yes	50	50
IMC 10/50/126	509017	509042	125	10	M10	30	50 / 60	118	17	50 / 40	Yes	50	50
IMC 10/100/176	509018	509043	175	10	M10	30	100 / 110	168	17	50 / 40	Yes	50	50
IMC 12/50/146	509022	509047	144	12	M12	50	50 / 65	135	19	65 / 50	Yes	20	20
IMC 12/100/196	509023	509048	194	12	M12	50	100 / 115	185	19	65 / 50	Yes	20	20
IMC 12/10/106	509019	509045	104	12	M12	50	10 / 25	95	19	65 / 50	Yes	20	20
IMC 12/20/116	509020	509046	114	12	M12	50	20 / 35	105	19	65 / 50	Yes	20	20
IMC 12/30/126	509021	-	124	12	M12	50	30 / 45	115	19	65 / 50	Yes	20	-
IMC 12/120/216	519032	-	214	12	M12	50	120 / 135	205	19	65 / 50	Yes	20	-
IMC 12/140/236	519033	-	234	12	M12	50	140 / 155	225	19	65 / 50	Yes	20	-
IMC 12/160/256	519034	-	254	12	M12	50	160 / 175	245	19	65 / 50	Yes	20	-
IMC 12/180/276	519035	-	274	12	M12	50	180 / 195	265	19	65 / 50	Yes	10	-
IMC 12/200/296	519036	-	294	12	M12	50	200 / 215	285	19	65 / 50	Yes	10	-
IMC 12/250/346	519037	-	344	12	M12	50	250 / 265	335	19	65 / 50	Yes	10	-
IMC 16/25/145	509024	-	143	16	M16	100	25 / 40	129	24	70 / 50	Yes	20	-
IMC 16/50/170	509025	509049	168	16	M16	100	50 / 65	154	24	70 / 50	Yes	20	10
IMC 16/100/220	509026	-	218	16	M16	100	100 / 115	204	24	80 / 65	Yes	10	-
IMC 16/200/321	519040	-	318	16	M16	100	200 / 215	304	24	80 / 65	Yes	10	-
IMC 16/250/371	519041	-	368	16	M16	100	250 / 265	354	24	80 / 65	Yes	10	-
IMC 16/300/421	519042	-	418	16	M16	100	300 / 315	404	24	80 / 65	Yes	10	-
IMC 16/140/260	519038	-	258	16	M16	100	140 / 155	244	24	80 / 65	Yes	10	-
IMC 16/160/280	519039	-	278	16	M16	100	160 / 175	264	24	80 / 65	Yes	10	-
IMC 20/30/184	509027	-	187	20	M20	200	30 / 55	165	30	80 / 65	Yes	10	-
IMC 20/60/214	509028	-	217	20	M20	200	60 / 85	195	30	85 / 65	Yes	10	-
IMC 12/180/276 GS	522474	-	274	12	M12	50	180 / 195	265	19	65 / 50	Yes	10	-
IMC 12/120/216 GS	522463	-	214	12	M12	50	120 / 135	205	19	65 / 50	Yes	20	-
IMC 12/200/296 GS	522464	-	294	12	M12	50	200 / 215	285	19	65 / 50	Yes	10	-
IMC 12/140/236 GS	522465	-	234	12	M12	50	140 / 155	225	19	65 / 50	Yes	10	-
IMC 12/160/256 GS	522466	-	254	12	M12	50	160 / 175	245	19	65 / 50	Yes	10	-
IMC 12/100/196 GS	522467	-	194	12	M12	50	100 / 115	185	19	65 / 50	Yes	20	-
IMC 12/80/176 GS	522468	-	174	12	M12	50	80 / 95	165	19	65 / 50	Yes	20	-
IMC 12/250/346 GS	522470	-	344	12	M12	50	250 / 265	335	19	65 / 50	Yes	10	-
IMC 16/160/280 GS	522472	-	278	16	M16	100	160 / 175	264	24	80 / 65	Yes	10	-
IMC 16/100/220 GS	522473	-	218	16	M16	100	100 / 115	204	24	80 / 65	Yes	10	-
IMC 16/300/420 GS	522475	-	418	16	M16	100	300 / 315	404	24	80 / 65	Yes	10	-
IMC 16/250/370 GS	522476	-	368	16	M16	100	250 / 265	354	24	80 / 65	Yes	10	-
IMC 16/140/260 GS	522469	-	258	16	M16	100	140 / 155	244	24	80 / 65	Yes	10	-
IMC 16/200/320 GS	522471	-	318	16	M16	100	200 / 215	304	24	80 / 65	Yes	10	-
IMC 8/5/56 K	509029	509034	55	8	M8	15	5 / -	51	13	30 / -	Yes	100	100
IMC 10/5/71 K	509030	509038	70	10	M10	30	5 / -	63	17	40 / -	Yes	50	50
IMC 12/5/86 K	509031	509044	84	12	M12	50	5 / -	75	19	50 / -	Yes	20	20
IMC 16/15/120 K	509032	-	118	16	M16	100	15 / -	104	24	65 / -	Yes	20	-

Stainless steel (R/A4): For fastening outdoors or in damp rooms
Zink plated steel (zp): For fastening in dry indoor areas
Short (K): The short version of the bolt anchor reduces the drill hole depth and the risk of hitting reinforcement, enabling quick installation while saving costs
Large washer (GS): The large washer protects the surface of the attachment and prevents cutting into wood.

Bolt anchor IMC

Load table

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25
For the design the complete current assessment ETA-10/0169 has to be considered.

Type	Material / surface[2]	Effective anchoragedepth	Minimummember thickness	Installationtorque	Non-cracked concrete			
					Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
		h_{ef} [mm]	h_{min} [mm]	T_{inst} [Nm]	N_{perm}[3] [kN]	V_{perm}[3] [kN]	s_{min}[3] [mm]	c_{min}[3] [mm]
IMC 8	zp	30	100	15	2.9	6.9	40	40
	zp	40	100	15	5.9	7.6	40	40
	R	30	100	10	2.9	6.9	50	45
	R	40	100	10	5.9	7.3	40	45
IMC 10	zp	40	100	30	5.9	12	50	80
	zp	50	100	30	8.3	12	50	50
	R	40	100	20	5.9	11.6	50	80
	R	50	100	20	8.3	11.6	70	55
IMC 12	zp	50	100	50	8.3	17.9	70	100
	zp	65	120	50	12.3	17.9	70	70
	R	50	100	35	8.3	15.7	70	100
	R	65	120	35	12.3	15.7	70	70
IMC 16	zp	65	120	100	12.3	28.2	90	120
	zp	80	160	100	16.8	31.5	90	90
	R	65	120	80	12.3	28.2	90	120
	R	80	160	80	16.8	29.1	120	80
IMC 20	zp	80	160	200	16.8	38.3	120	120
	zp	105	200	200	25.2	38.3	120	120
	R	80	160	150	16.8	38.6	140	120
	R	105	200	150	25.2	19.1	120	120

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interior stainless steel (R) and exterior conditions, e.g. material 1.4362, 1.4401.

[3] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor design software DesignFiX.

Sleeve anchor UHS

Versatile heavy-duty sleeve anchor for high performance with a design appearance. Approved for concrete, seismic, and fire protection.

Description

The Upat sleeve anchor UHS delivers high performance with design. It is particularly suitable for installation in cracked and uncracked concrete as well as dense natural stone, both indoors and outdoors. Thanks to its high lateral load capacity, the number of fixing points is reduced, giving the installation a discreet appearance.

Characteristics

- **Certification/Approval:** ETA Option 1 cracked concrete, ETA Option 7 uncracked concrete, ETA seismic, fire resistance, VdS CEA guidelines compliant
- **Load range:** Tension load 3.6-32.7kN, shear load 4.1-65.5kN
- **Material:** Zinc plated steel (zp), Stainless Steel (R)
- **Variant:** Hexagon head (S), countersunk head (SK), threaded bolt and nut (B), internal thread (I)
- **Feature:** Thread M6-M20, usable length 10-100mm
- **Accessory:** Blow-out pump UPM AB

Applications

- Balcony railings
- Stair railings
- High racks
- Support feet
- Bike racks
- Barrier
- Silos
- Pumps
- Canopies
- Garden gates

Advantages

- **Discreet appearance:** Available with countersunk or hexagonal heads, threaded bolts with nuts and internal threads
- **Comprehensive approval package:** ETA concrete approval option 1, seismic approval, fire resistance and sprinkler system approval
- **High lateral loads:** The screw shaft and sleeve are optimally matched to each other and enable high lateral loads
- **Flexible installation:** The metric internal thread allows threaded rods, hooks or screws to be flexibly installed and removed flush with the surface

Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked

Also suitable for:

- Concrete C12/15
- Natural stone with dense structure

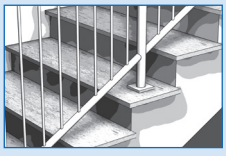
Fire resistance classification R 120
Anchor types see test report

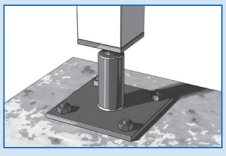
EDELSTAHL Rost frei
INOX STAINLESS STEEL

ETA-17/0288
ETAG 001-2
Option 1 for cracked concrete
Seismic performance category C1, C2

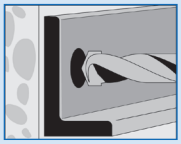
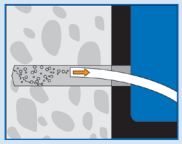
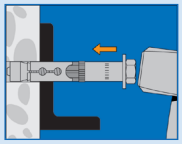
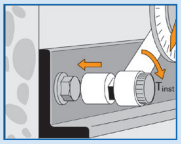
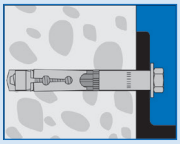
SEISMIC

Application examples



Assembly

Straight to the product

upat.com/en-uhs

Sleeve anchor UHS

Product variants

Name	Art.-No. (zp)	Art.-No. (R)	Anchor length	Drill diameter	Min. drill hole depth for through fixings	Max. fixture thickness	Fire resistance	ETA approval	Sales unit (zp)	Sales unit (R)
UHS 10/10 B	547273	-	70	10	65	10	R120	Yes	50	-
UHS 10/25 B	547274	-	75	10	80	25	R120	Yes	50	-
UHS 10/50 B	547275	-	110	10	105	50	R120	Yes	50	-
UHS 12/10 B	547276	-	95	12	90	10	R120	Yes	50	-
UHS 12/25 B	547277	-	110	12	105	25	R120	Yes	50	-
UHS 12/50 B	547278	-	135	12	130	50	R120	Yes	25	-
UHS 12/100 B	547279	-	185	12	180	100	R120	Yes	25	-
UHS 15/25 B	547281	-	125	15	115	25	R120	Yes	25	-
UHS 15/50 B	547282	-	150	15	140	50	R120	Yes	25	-
UHS 15/100 B	547283	-	200	15	190	100	R120	Yes	20	-
UHS 15/10 B	547280	-	110	15	100	10	R120	Yes	25	-
UHS 18/25 B	547284	-	140	18	130	25	R120	Yes	20	-
UHS 18/50 B	547285	-	165	18	155	50	R120	Yes	10	-
UHS 18/100 B	547286	-	215	18	205	100	R120	Yes	10	-
UHS 24/100 B	547289	-	242	24	225	100	R120	Yes	5	-
UHS 24/25 B	547287	-	167	24	150	25	R120	Yes	10	-
UHS 24/50 B	547288	-	192	24	175	50	R120	Yes	10	-
UHS 28/30 B	547290	-	199	28	185	-	R120	Yes	4	-
UHS 28/60 B	547291	-	229	28	215	60	R120	Yes	4	-
UHS 12/M6 I	547265	547269	77,5	12	85	3 - 5	R120	Yes	25	25
UHS 12/M8 I	547266	547270	77,5	12	85	3 - 5	R120	Yes	25	25
UHS 15/M10 I	547267	547271	90	15	95	-	R120	Yes	25	25
UHS 15/M12 I	547268	547272	90	15	95	-	R120	Yes	20	20
UHS 10/10 S	547252	547261	70	10	65	10	R120	Yes	50	50
UHS 10/25 S	547253	-	75	10	80	25	R120	Yes	50	-
UHS 10/50 S	547254	-	110	10	105	50	R120	Yes	50	-
UHS 12/50 S	547257	-	130	12	130	50	R120	Yes	25	-
UHS 12/10 S	547255	547262	90	12	90	10	R120	Yes	50	50
UHS 12/25 S	547256	547263	105	12	105	25	R120	Yes	50	20
UHS 15/10 S	547258	547264	106	15	100	10	R120	Yes	25	50
UHS 15/25 S	547259	-	121	15	115	25	R120	Yes	25	-
UHS 15/50 S	547260	-	146	15	140	50	R120	Yes	25	-
UHS 10/15 SK	541303	-	65	10	70	15	R120	Yes	50	-
UHS 10/25 SK	547241	-	75	10	80	25	R120	Yes	50	-
UHS 10/50 SK	547242	-	100	10	105	50	R120	Yes	50	-
UHS 12/15 SK	541304	547248	90	12	95	15	R120	Yes	25	25
UHS 12/25 SK	547243	-	100	12	105	25	R120	Yes	25	-
UHS 12/50 SK	547244	547250	125	12	130	50	R120	Yes	25	25
UHS 15/15 SK	547245	547251	100	15	105	15	R120	Yes	25	25
UHS 15/25 SK	547246	-	110	15	115	25	R120	Yes	25	-
UHS 15/50 SK	547247	-	135	15	140	50	R120	Yes	25	-
UHS 12/30 SK	-	547249	105	12	110	30	R120	Yes	-	25

Stainless steel (R): For fastenings outdoors or in damp rooms
Zink plated steel (zp): For fastenings in dry indoor areas
Hexagon head (S): For secure application of torque from the outside, even in confined installation spaces
Countersunk head (SK): For a visually appealing and flush-mounted fastening
Threaded bolt and nut (B): For series mounting and precise adjustment of the attachment
Internal thread (I): For use with metric screws and flush removal

Sleeve anchor UHS

Load table

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25
For the design the complete current assessment ETA-17/0288 has to be considered.

Type	Material / surface[2]	Effective anchor-agedepth	Minimum-member thickness	Installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})				Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
		h_{ef}	h_{min}	T_{inst}	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]	[kN]	[kN]	[mm]	[mm]
UHS 10 S	zp	40	80	10	3.6	4.1	50	50	5.9	5.9	50	50
	R	40	80	15	3.6	4.1	50	50	5.9	5.9	50	50
UHS 12 S	zp	60	120	22.5	5.7	15.2	60	60	10.9	18.9	70	70
	R	60	120	25	5.7	15.2	60	60	9.5	17.7	70	70
UHS 15 S	zp	70	140	40	7.6	19.2	70	70	13.7	27.4	80	80
	R	70	140	40	7.6	19.2	70	70	13.7	27.4	80	80
UHS 10 SK	zp	40	80	10	3.6	4.1	50	50	5.9	5.9	50	50
UHS 12 SK	zp	60	120	22.5	5.7	15.2	60	60	10.9	18.9	70	70
	R	60	120	22.5	5.7	15.2	60	60	10.9	18.9	70	70
UHS 15 SK	zp	70	140	40	7.6	19.2	70	70	13.7	27.4	80	80
	R	70	140	40	7.6	19.2	70	70	13.7	27.4	80	80
UHS 18 SK	zp	80	160	80	11.7	23.5	80	80	16.8	33.5	90	90
UHS 12 / M 6 I	zp	60	125	15	4.3	2.9	60	60	4.7	2.9	70	70
	R	60	125	15	4.3	3.2	60	60	5.4	3.2	70	70
UHS 12 / M 8 I	zp	60	125	15	4.3	5.1	60	60	8.6	5.1	70	70
	R	60	125	15	4.3	5.9	60	60	8.6	5.9	70	70
UHS 15 / M10 I	zp	70	150	25	5.7	8.6	70	70	13.8	8.6	80	80
	R	70	150	25	5.7	9.1	70	70	14.1	9.1	80	80
UHS 15 / M12 I	zp	70	150	25	5.7	12	70	70	14.1	12	80	80
	R	70	150	25	5.7	13.7	70	70	14.1	13.7	80	80
UHS 10 B	zp	40	80	10	3.6	4.1	50	50	5.9	5.9	50	50
UHS 12 B	zp	60	120	17.5	5.7	15.2	60	60	10.9	15.5	70	70
UHS 15 B	zp	70	140	38	7.6	19.2	70	70	13.7	24.5	80	80
UHS 18 B	zp	80	160	80	11.7	23.5	80	80	16.8	33.5	90	90
UHS 24 B	zp	100	200	120	16.4	32.8	100	100	23.4	46.9	125	125
UHS 28 B	zp	125	250	180	22.9	45.8	125	150	32.7	65.5	150	150

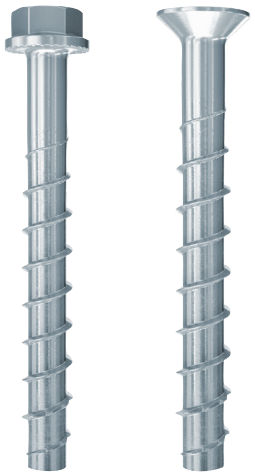
[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interior stainless steel (R) and exterior conditions, e.g. material 1.4362, 1.4401.

[3] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor design software DesignFiX.

Concrete screw UCS

Powerful concrete screw for easy installation.
Approved for concrete, seismic, and fire protection.



Description

The powerful concrete screw for easy installation. Suitable for concrete. For medium and high loads. Approved for concrete, seismic and fire protection. Available product variants: hexagon head (US), countersunk head (SK) and Torx drive (TX). Selectable product features Drill diameter 8-14 mm and effective length 5-205 mm. Used in through-hole mounting. Features a wide range of approvals, high load capacity and flexible installation.

Characteristics

- **Approval/Certification:** ETA Option 1 cracked concrete, ETA Option 7 uncracked concrete, ETA seismic, fire resistance, VdS CEA guidelines compliant
- **Load range:** Tension load 2.9-21kN, shear load 4.1-29.4kN
- **Material:** Zinc plated steel (zp)
- **Variant:** Hexagon head (US), countersunk head (SK), Torx drive (TX)
- **Feature:** Drill diameter 8-14mm, usable length 5-205mm

Advantages

- **Wide range of approvals:** ETA concrete approval option 1, seismic and fire resistance
- **High load capacity:** Thanks to the optimised design of the concrete screw thread
- **Flexible installation:** Thanks to up to three approved screw-in depths
- **Time-saving installation:** In many applications, cleaning the drill hole is not necessary

Applications

- Stair railings
- Formwork supports
- Beam anchorage
- Cable ducts
- Pumps
- Stadium seats
- Lighting strips
- Electrical installation
- Pipe fastening

Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked

Also suitable for:

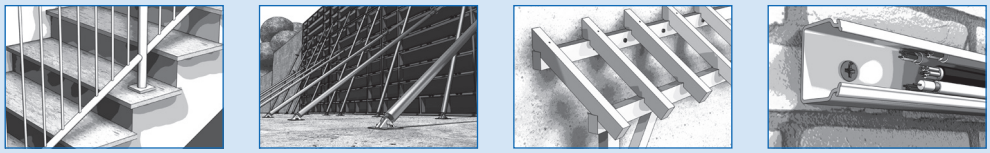
- Concrete C12/15
- Full construction materials
- Masonry with dense structure

Fire resistance classification
R 120
Anchor types see test report

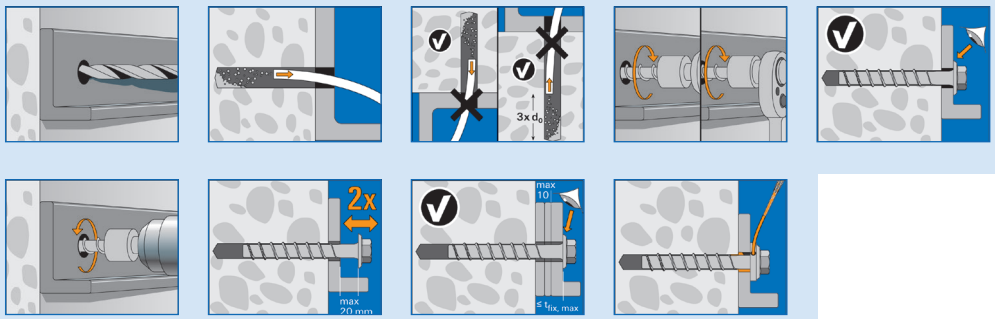
ETA-18/0762
EAD 330011-00-0601
Option 1 for cracked concrete
seismic performance category C1, C2

SEISMIC

Application examples



Assembly



Straight to the product

upat.com/en-ucs

Concrete screw UCS

Product variants

Name	Art-No.	Drive	Drill diameter	Nominal embedment depth / thickness of fixture	Nominal embedment depth / thickness of fixture	Nominal embedment depth / thickness of fixture	Max. fixture thickness	Min. drill hole depth for through fixings	Screw dimension	Seismic-Approval	Sales unit
UCS 8x60 SK	547619	TX40	8	50 / 10	-	-	10	70	10x60	-	50
UCS 8x90 SK	547621	TX40	8	50 / 65	65 / 25	65 / 25	40	100	10x90	C1 / C2	50
UCS 8x80 SK	547620	TX40	8	50 / 30	65 / 15	65 / 15	30	90	10x80	C1 / C2	50
UCS 10x200 US	547606	SW 15	10	55 / 145	85 / 115	85 / 115	145	210	12x200	C1 / C2	20
UCS 10x120 SK	547626	TX50	10	55 / 65	85 / 35	85 / 35	65	130	12x120	C1 / C2	50
UCS 10x100 US	547602	SW 15	10	55 / 45	85 / 15	85 / 15	45	110	12x100	C1 / C2	50
UCS 10x90 US	547601	SW 15	10	55 / 35	85 / 5	85 / 5	35	100	12x90	C1 / C2	50
UCS 10x100 SK	547625	TX50	10	55 / 45	85 / 15	85 / 15	45	110	12x100	C1 / C2	50
UCS 10x80 SK	547623	TX50	10	55 / 25	65 / 5	65 / 5	25	90	12x80	-	50
UCS 10x95 SK	547624	TX50	10	55 / 40	85 / 10	85 / 10	40	105	12x95	C1 / C2	50
UCS 10x60 US	547598	SW 15	10	55 / 5	-	-	5	70	12x60	-	50
UCS 10x160 US	547605	SW 15	10	55 / 105	85 / 75	85 / 75	105	170	12x160	C1 / C2	50
UCS 10x120 US	547603	SW 15	10	55 / 65	85 / 35	85 / 35	65	130	12x120	C1 / C2	50
UCS 10x140 US	547604	SW 15	10	55 / 85	85 / 55	85 / 55	85	150	12x140	C1 / C2	50
UCS 10x260 US	547608	SW 15	10	55 / 205	85 / 175	85 / 175	205	270	12x260	C1 / C2	20
UCS 10x65 SK	547622	TX50	10	55 / 10	-	-	10	75	12x65	-	50
UCS 10x70 US	547599	SW 15	10	55 / 15	65 / 5	65 / 5	15	80	12x70	-	50
UCS 10x80 US	547600	SW 15	10	55 / 25	65 / 15	65 / 15	25	90	12x80	-	50
UCS 10x230 US	547607	SW 15	10	55 / 175	85 / 145	85 / 145	175	240	12x230	C1 / C2	20
UCS 12x130 US	547612	SW 17	12	60 / 70	100 / 30	100 / 30	70	140	14x130	C1 / C2	20
UCS 12x110 US	547611	SW 17	12	60 / 50	100 / 10	100 / 10	50	120	14x110	C1 / C2	20
UCS 12x85 US	547610	SW 17	12	60 / 25	75 / 10	75 / 10	25	95	14x85	-	20
UCS 12x70 US	547609	SW 17	12	60 / 10	-	-	10	80	14x70	-	20
UCS 14x150 US	547618	SW 21	14	65 / 85	115 / 35	115 / 35	85	165	16x150	C1 / C2	10
UCS 14x125 US	547617	SW 21	14	65 / 60	115 / 10	115 / 10	60	140	16x125	C1 / C2	10
UCS 14x95 US	547615	SW 21	14	65 / 30	85 / 10	85 / 10	30	105	16x95	-	20
UCS 14x100 US	547616	SW 21	14	65 / 35	85 / 15	85 / 15	35	115	16x100	-	20
UCS 14x75 US	547614	SW 21	14	65 / 10	-	-	10	90	16x75	-	20
UCS 8x100 US TX	547595	TX40 / SW 13	8	50 / 50	65 / 35	65 / 35	80	110	10x100	C1 / C2	50
UCS 8x90 US TX	547594	TX40 / SW 13	8	50 / 40	65 / 25	65 / 25	40	100	10x90	C1 / C2	50
UCS 8x80 US TX	547593	TX40 / SW 13	8	50 / 30	65 / 15	65 / 15	30	90	10x80	C1 / C2	50
UCS 8x110 US TX	547596	TX40 / SW 13	8	50 / 60	65 / 45	65 / 45	60	120	10x110	C1 / C2	50
UCS 8x130 US TX	547597	TX40 / SW 13	8	50 / 80	65 / 65	65 / 65	80	140	10x130	C1 / C2	50
UCS 8x70 US TX	547592	TX40 / SW 13	8	50 / 20	65 / 5	65 / 5	20	80	10x70	C1 / C2	50
UCS 8x55 US TX	547591	TX40 / SW 13	8	50 / 5	-	-	5	65	10x55	-	50
UCS 12x150 90/75/50 US	547613	SW 17	12	60 / 90	100 / 50	100 / 50	90	160	14x150	C1 / C2	20

Hexagon head (US): For secure application of torque from the outside, even in small installation spaces
Countersunk head (SK): For visually appealing and flush-mounted fastening
Torx drive (TX): For secure installation. No over-tightening, no slipping out, no damage
Zinc plated steel (zp): For dry internal conditions

Concrete screw UCS

Load table

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25

For the design the complete current assessment ETA-18/0762 has to be considered.

Type	Material / surface	Screw in depth	Minimum-member thickness	Maximum installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})				Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
		h_{nom}	h_{min}	$T_{imp,max}$[2]	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]	N_{perm}[3]	V_{perm}[3]	s_{min}[3]	c_{min}[3]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]	[kN]	[kN]	[mm]	[mm]
UCS 8	zp	50	100	600	2.9	4.1	35	35	5.9	5.9	35	35
	zp	65	120	600	5.7	9	35	35	8.8	9	35	35
UCS 10	zp	55	100	650	4.3	4.6	40	40	6.6	6.6	40	40
	zp	65	120	650	5.7	11.9	40	40	8.5	14	40	40
	zp	85	140	650	9.2	16.6	40	40	13.1	16.6	40	40
UCS 12	zp	60	110	650	5.3	10.6	50	50	7.5	15.1	50	50
	zp	75	130	650	7.6	15.2	50	50	10.9	15.2	50	50
	zp	100	150	650	12	20.3	50	50	17.1	20.3	50	50
UCS 14	zp	65	120	650	5.8	11.6	60	60	8.3	16.6	60	60
	zp	85	140	650	9	18	60	60	12.8	22.1	60	60
	zp	115	180	650	14.7	29.4	60	60	21	29.4	60	60

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Maximum allowable torque for installation with any tangential impact screw driver. Further technical data see ETA.

[3] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor design software DesignFiX.

Nail anchor UNA

Efficient nail anchor for streamlined installation.
Approved for concrete (multiple fixings) and fire protection.

Description

The Upat nail anchor UNA is the pragmatic impact anchor for quick installation. With a simple setting process, it can be used for fastenings in both indoor and outdoor environments. The nail anchor UNA is commonly used, for example, for the fastening of mounting rails and substructures made of metal or wood.

Characteristics

- **Certification/Approval:** ETA multiple fastening in cracked concrete, fire resistance, VdS CEA guidelines compliant
- **Load range:** Tension load, shear load, and angle load 0.7-2.4kN
- **Material:** Zinc plated steel (zp), Stainless Steel (R)
- **Variant:** Nail head, threaded and flange nut (M), eyelet (OE)
- **Feature:** Drill diameter 6mm, usable length 5-75mm
- **Accessory:** Blow-out pump UPM AB

Applications

- Wooden substructures
- Cable support systems
- Electrical installations
- Ventilation ducts

Advantages

- **Secure anchoring:** ETA concrete approval option 1 for multiple fastening of non-load-bearing systems and fire resistance
- **Easy installation:** Setting process without torque and impact aid
- **Secure impact:** Prevents reinforcement hits due to reduced impact depth
- **Installation-friendly:** Ideal for overhead installations thanks to direct hold already when inserted

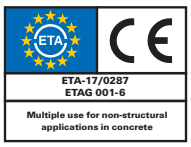
Materials

Approved for:

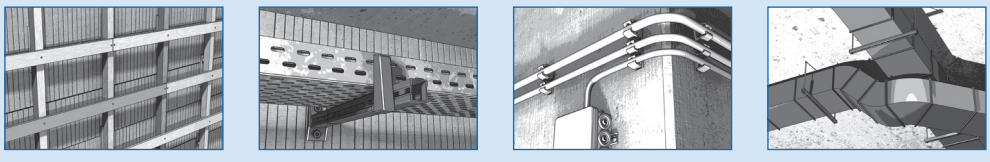
- Concrete C12/15 to C50/60, cracked, for use as multiple fixings for redundant non-structural systems

Also suitable for:

- Calcium silicate solid bricks
- Natural stone with dense structure
- Precast concrete hollow core slab decks



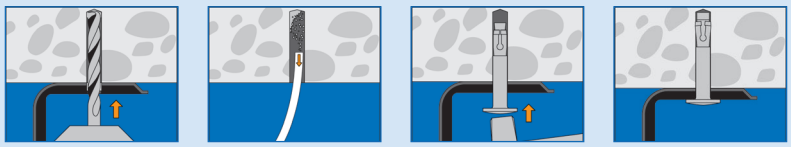
Application examples



Straight to the product

upat.com/en-una

Assembly



Nail anchor UNA

Product variants

Name	Art.-No. (zp)	Art.-No. (A4)	Anchor length	Drill diameter	Thread	Max. fixture thickness	Min. drill hole depth for through fixings	Fire resistance	Sales unit (zp)	Sales unit (A4)
UNA 6x30/30	541307	547294	65	6	--	30	70	R120	50	50
UNA 6x30/5	541308	547293	40	6	--	5	45	R120	100	100
UNA 6x30/50	541309	547295	85	6	--	50	90	R120	50	50
UNA 6x30/75	547292	-	110	6	--	75	115	R120	50	-
UNA 6x30 M6/5	541306	-	50	6	M6	5	45	R120	100	-
UNA 6x25 OE	541305	-	54	6	--	--	35	R120	50	-

Stainless steel (R): For fastenings outdoors or in damp rooms
Zink plated steel (zp): For fastenings in dry indoor areas
Thread and flange nut (M): For series installation and precise adjustment of the attachment
Eye (OE): For fastening of suspensions and hangers

Load table

Permissible loads[1] for a single anchor for multiple use for non-structural applications in normal concrete C20/25 up to C50/60.
For the design the complete current assessment ETA - 17/0287 has to be considered.

Type	Material / surface[2]	Effective anchorage depth	Minimummember thickness	Maximuminstallationtorque	Cracked concrete		
					Permissible load (F_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})		
		h_{ef}	h_{min}	$T_{inst,max}$	F_{perm}[3]	s_{min}[4]	c_{min}[4]
		[mm]	[mm]	[Nm]	[kN]	[mm]	[mm]
UNA II 6 x 30	zp	30	80	-	2.4	40	40
	A4	30	80	-	2.4	40	40
UNA 6 x 30 M6	zp	30	80	4	2.4	40	40
	A4	30	80	4	2.4	40	40
UNA II 6 x 25 OE	zp	25	80	-	0.7	40	40

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA.

[3] Maximum load for normal spacing and edge distances. Valid for tensile load, shear load and oblique load under any angle. In the case of shear loads with lever arm (bending) as well as reduced spacings or edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018.

[4] Minimum possible axial spacings resp. edge distances. Smaller permissible loads acc. ETA are required.

Drop-in anchor USA

Time-saving drop-in anchor for quick installation with internal thread. Approved for concrete and fire protection.

Description

The Upat drop-in anchor USA is the time-saving solution for fastening through screws with metric threads and threaded rods. This internal thread anchor is particularly suitable for fastening in concrete and natural stone with a dense structure. The drop-in anchor USA is commonly used for overhead installation and in cases of low concrete thickness for the approved fastening of non-load-bearing systems such as pipe runs and ventilation ducts.

Characteristics

- **Approval:** ETA Option 7 uncracked concrete, ETA multiple fastening cracked concrete, ETA multiple fastening in prestressed hollow-core slab, fire test, VdS CEA guidelines compliant
- **Load range:** Tension load 5.9-16.8 kN, shear load 4.9-33.5 kN
- **Material:** Stainless steel (R), zinc plated steel (zp)
- **Feature:** Thread M6-M12
- **Accessories:** Blow-out pump UPM AB, setting tool USA-SWZ

Applications

- Benches
- Ceiling suspension
- Pipe fastening
- Cable support systems
- Trash bins
- Stadium seats
- Ventilation ducts

Advantages

- **Tested safety:** ETA approval option 1 cracked concrete for redundant non-structural systems, ETA approval aption 7 uncracked concrete, as well as fire resistance and sprinkler systems.
- **Easy impact installation:** The rim secures the drop-in anchor against slipping into the drill hole and allows for flush mounting
- **No torque required:** No torque is required for the metric screws due to the impact installation
- **High loads:** The drop-in anchor sleeve with internal expansion cone enables high load capacities in concrete

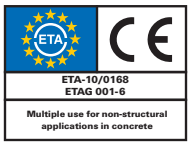
Materials

Approved for

- Concrete C20/25 to C50/60, cracked and prestressed concrete hollow slabs C30/37 to C50/60 for multiple fastening of non-load-bearing systems
- Concrete C20/25 to C50/60, uncracked

Also suitable for:

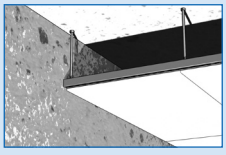
- Concrete C12/15
- Natural stone with dense structure



Straight to the product

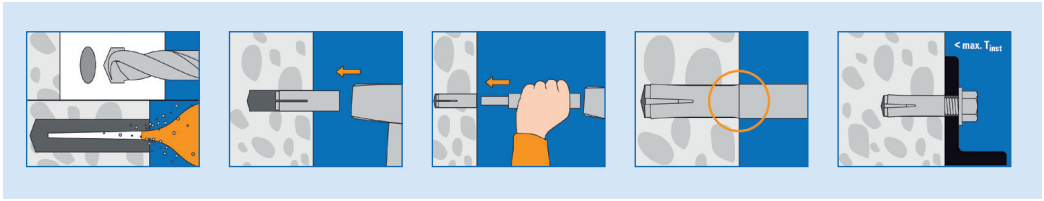
upat.com/en-usa

Application examples



Drop-in anchor USA

Assembly



Product variants

Name	Art.-No. (zp)	Art.-No. (A4)	Anchor length	Drill diameter	Internal thread	Max. bolt penetration	Min. drill hole depth	Min. bolt penetration	Fire resistance	ETA approval	Sales unit (zp)	Sales unit (A4)
USA M 6	509052	509059	30	8	M6	13	32	6	R120	Yes	100	100
USA M 8x30	509053	509060	30	10	M8	13	33	8	R120	Yes	100	100
USA M 8x40	509054	-	40	10	M8	13	43	8	R120	Yes	100	-
USA M 10	509055	509061	40	12	M10	17	43	10	R120	Yes	50	50
USA M 12	509056	509063	50	15	M12	22	54	12	R120	Yes	50	50
USA M 16	509057	-	65	20	M16	28	70	16	R120	Yes	20	-
USA M 20	509058	-	80	25	M20	34	85	20	R120	Yes	20	-

Stainless steel (R/A4): For fastenings outdoors or in damp rooms
Zink plated steel (zp): For fastenings in dry indoor areas

Load table

Permissible loads for a single anchor[1] for multiple use for non-structural applications in cracked and non-cracked concrete C20/25 up to C50/60.
For the design the complete current assessment ETA-10/0168 has to be considered.

Type	Material / surface[2]	Screw Material	Effective anchor-agedepth	Minimummember thickness	Maximuminstallation-torque	Cracked concrete		
						Permissible load (F_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})		
			h_{ef} [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	F_{perm}[3] [kN]	s_{min} [mm]	c_{min} [mm]
USA M6	zp	4.6	25	80	4	1	30	60
	zp	4.6	30	80	4	1.2	65	115
USA M8	zp	4.6	25	80	8	1.4	50	100
	zp	4.6	30	80	8	2	70	115
	zp	4.6	40	80	8	2	70	115
USA M10	zp	4.6	25	80	15	1.9	60	100
	zp	4.6	30	80	15	2	85	140
	zp	4.6	40	80	15	3	95	150
USA M12	zp	4.6	25	80	35	1.9	100	110
	zp	4.6	50	100	35	3	145	200

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA.

[3] Valid for tensile load, shear load and oblique load under any angle. In the case of combinations of tensile, shear loads and bending moments, the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018.

Drop-in anchor USA

Load table

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25

For the design the complete current assessment ETA-10/0172 has to be considered.

Type	Material / surface[2]	Screw Material	Effective anchorage depth	Minimum member thickness	Maximum installationtorque	Non-cracked concrete			
						Permissible Tension (N_{perm}), Shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
			$h_{ef,min}$ [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	N_{perm}[3] [kN]	V_{perm}[3] [kN]	s_{min}[3] [mm]	c_{min}[3] [mm]
USA M8x40	zp	5.8	40	100	8	5.9	4.9	70	115
	zp	8.8	40	100	8	5.9	4.9	70	115
	R	A4-70	40	100	8	5.9	5.6	70	115
USA M10x40	zp	5.8	40	120	15	5.9	6.2	95	150
	zp	8.8	40	120	15	5.9	6.2	95	150
	R	A4-70	40	120	15	5.9	7.1	95	150
USA M12x50	zp	5.8	50	120	35	8.3	11.3	145	200
	zp	8.8	50	120	35	8.3	11.3	145	200
	R	A4-70	50	120	35	8.3	12.9	145	200
USA M16x65	zp	5.8	65	160	60	12.3	18.3	180	240
	zp	8.8	65	160	60	12.3	18.3	180	240
	R	A4-70	65	160	60	12.3	21.1	180	240
USA M20x80	zp	5.8	80	200	120	16.8	29.1	190	280
	zp	8.8	80	200	120	16.8	29.1	190	280
	R	A4-70	80	200	120	16.8	33.5	190	280

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA.

[3] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend to use our anchor dimensioning software DesignFiX.

Accessories steel anchors

Clever hammering aid for fast installation.

Description

The Upat setting tool USA-SWZ, made of metal, ensures a safe and fast expansion of the Upat impact anchor USA with its unique mechanism. The setting tool enables optimal expansion with just a few hammer blows and leaves four embossed markings at the top of the anchor when correctly installed.

Advantages

- **Secure Installation:** The ideal setting tool for easy and secure installation of the drive anchor USA
- **Easy Installation:** Optimal expansion of the drive anchor with few hammer blows
- **Safe Post-Installation Check:** Upon correct installation, the setting tool marks the edge of the drive anchor

Straight to the product

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Product variants

Name	Art-No.	Match	Content	Sales unit
USA-SWZ M 6	509064	USA M 6	1 x setting tool M6	1
USA-SWZ M 8 x 30	509065	USA M 8	1 x setting tool M8x30	1
USA-SWZ M 8 x 40	509066	USA M 8 x 40	1 x setting tool M8x40	1
USA-SWZ M 10	509067	USA M 10	1 x setting tool M10	1
USA-SWZ M 12	509068	USA M 12	1 x setting tool M12	1
USA-SWZ M 16	509069	USA M 16	1 x setting tool M16	1
USA-SWZ M 20	509070	USA M 20	1 x setting tool M20	1

Chemical fixings

Injection mortar UPM 66 ..... Page 36

Injection mortar UPM 55 ..... Page 38

Injection mortar UPM 44 ..... Page 41

Injection mortar UPM 33 ..... Page 46

Injection mortar UPM 11 ..... Page 51

Bonded anchor UKA3 Plus ..... Page 53

Anchor rods UPM-A/ASTA ..... Page 56

Internal threaded anchor UPM-I/IST ..... Page 58

High performance bonded anchor UHB ..... Page 60

Perforated sleeve UPM-SH ..... Page 62

Accessories chemical fixings ..... Page 64

Injection mortar UPM66

The strongest injection mortar for reduced installation effort. Approved for concrete and fire protection.

Description

The Upat high-performance bonded anchor system UPM 66, in combination with the UHB Inject-A, represents the highest standards and an efficient installation. The bonded anchor with its wide approval package allows for minimal axial and edge distances, reducing installation time. The bonded anchor is particularly suitable for the fastening of the highest loads in cracked and uncracked concrete, such as for railings, masts and steel structures.

Characteristics

- **Certification/Approval:** ETA Option 1 cracked and uncracked concrete, hammer drilling, hollow drilling
- **Load range in concrete:** Tension load 6.6-43.5kN, Shear load 7.8-80.6kN
- **System component:** Composite anchor UHB
- **Temperature in anchoring base:** -5°C to +40°C
- **Accessories:** Metal dispenser gun UPM MR or professional dispenser gun UPM DM P, Blow-out pump UPM AB, Cleaning brush UP BS

Applications

- Bridge railings
- Pumps
- Lifts
- Balcony railings
- Stair railings
- Steel beams
- High racks
- Silos

Advantages

- **Approval package:** Approval ETA Option 1 cracked concrete and fire protection testing
- **Efficient system:** Optimally coordinated system with high performance, through the combination of injection mortar UPM 66 and bonded anchor UHB
- **Optimal load capacity:** The bond between injection mortar and cone anchor geometry enables optimal load capacity
- **Wide range of applications:** Also suitable for bridge railings according to drawing GEL 14

Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked

Also suitable for

- Concrete C12/15

Fire resistance classification
R 120
Anchor types see test report

ETA
CE
ETA-18/0864
ETAG 001-5
Option 1 for cracked concrete

Straight to the product

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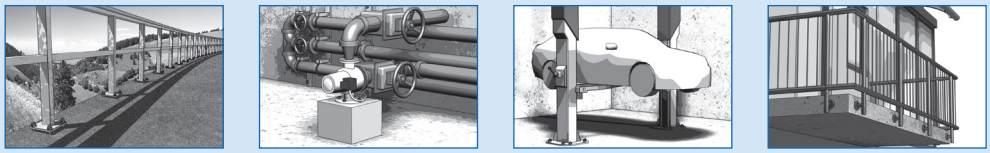
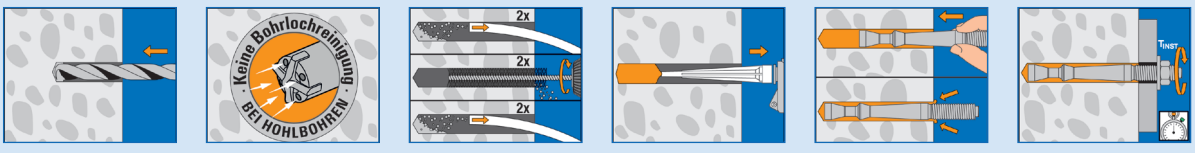
Application examples



Assembly



Injection mortar UPM66

Product variants

Name	Art-No.	Shelf life [months]	Content
UPM 66-345	546973	24	1 x cartridge 360 ml, 2 x static mixers

Load table

Permissible loads of a single anchor[1] [2] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-18/0864 has to be considered.

Type	Material / surface[3]	Effective anchorage depth	Minimum member thickness	Maximum Installationtorque	Cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef} [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	N_{perm}[3] [kN]	V_{perm}[3] [kN]	s_{min}[3] [mm]	c_{min}[3] [mm]
UHB-I-A S M10x60	8.8	60	100	15	6.6	11.3	40	40
UHB-I-A S M10x60	R-80	60	100	15	6.6	13.8	40	40
UHB-I-A S M10x75	8.8	75	120	15	9.3	11.3	40	40
UHB-I-A S M10x75	R-80	75	120	15	9.3	13.8	40	40
UHB-I-A S M12x75	8.8	75	120	30	9.3	15.6	40	40
UHB-I-A S M12x75	R-80	75	120	30	9.3	19.3	40	40
UHB-I-A S M16x95	8.8	95	150	50	13.2	29	50	50
UHB-I-A S M16x95	R-80	95	150	50	13.2	30.4	50	50
UHB-I-A S M20x170	8.8	170	240	100	31.7	45.9	80	80
UHB-I-A S M20x170	R-80	170	240	100	31.7	55.9	80	80
UHB-I-A S M24x170	8.8	170	240	100	31.7	65.3	80	80
UHB-I-A S M24x170	R-80	170	240	100	31.7	71.1	80	80
UHB-I-A L M8x60[4]	8.8	60	100	15	6.6	7.8	40	40
UHB-I-A L M8x60[4]	R-80	60	100	15	6.6	8.7	40	40
UHB-I-A L M12x100	8.8	100	140	40	14.3	17.3	50	50
UHB-I-A L M12x100	R-80	100	140	40	14.3	19.3	50	50
UHB-I-A L M12x120	8.8	120	170	40	18.8	17.3	50	50
UHB-I-A L M12x120	R-80	120	170	40	18.8	19.3	50	50
UHB-I-A L M16x125	8.8	125	170	60	20	32.2	55	55
UHB-I-A L M16x125	R-80	125	170	60	20	35.8	55	55
UHB-I-A L M16x145	8.8	145	190	60	24.9	32.2	60	60
UHB-I-A L M16x145	R-80	145	190	60	24.9	35.8	60	60
UHB-I-A L M16x160	8.8	160	220	60	28.9	32.2	70	70
UHB-I-A L M16x160	R-80	160	220	60	28.9	35.8	70	70
UHB-I-A L M20x210	8.8	210	280	100	43.3	50.2	90	90
UHB-I-A L M20x210	R-80	210	280	100	43.3	55.9	90	90
UHB-I-A L M24x210	8.8	210	280	100	43.3	72.5	90	90
UHB-I-A L M24x210	R-80	210	280	100	43.3	80.6	90	90

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA. 2) The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short term up to 80 °C). Drill hole cleaning as per specification in the ETA. The factor Ψsus for sustained load was taken into account with 1.0.

[2] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[3] In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor dimensioning software DesignFiX.

[4] Drilling with a hammer drill and suction is not permitted for this anchor size.

Injection mortar UPM55

Epoxy injection mortar for challenging applications. Approved for concrete, seismic, fire protection and reinforcement connections. Suitable for underwater use.

Description

The epoxy injection mortar for challenging applications. Suitable for concrete. For absorbing high loads. Approved for concrete, seismic, fire protection and reinforcement connections. Suitable for underwater use. Additional system components anchor rods (UPM-A/ASTA) or internally threaded anchors (UPM-I/IST). Is used for push-in or push-through installation. Characterised by a broad approval package, long curing times and a wide range of applications. Used, for example, for fastening reinforcing steel, underwater applications and bridge railings.

Characteristics

- **Certification/Approval:** ETA Option 1 cracked concrete, post-installed rebar connection, seismic, fire testing, hammer drilling, diamond drilling, hollow drilling, water-filled drill hole
- **Suitable for:** Underwater
- **Load range concrete:** Tensile load 5.1-150.1kN, shear load 5.1-90.2kN
- **System component:** Anchor rod ASTA/UPM-A, internally threaded anchor IST, reinforcing steel, commercially available threaded rods with test certificate 3.1
- **Temperature in the anchoring base:** +5°C to 40°C

Advantages

- **Broad approval package:** ETA Option 1 approval, subsequent reinforcement connection, seismic and fire protection testing
- **Long curing times:** With extended curing time, ideally suited for deep drill holes and large diameters
- **Wide range of applications:** Epoxy resin makes special applications such as underwater anchoring possible and increases flexibility
- **High loads:** The high-quality epoxy resin mortar is one of the strongest mortar formulations

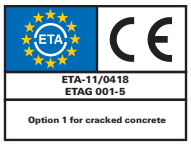
Applications

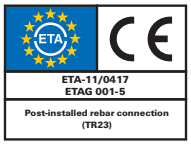
- Reinforcing steel
- Underwater application
- Bridge railings
- Steel construction
- Steel girders
- Column bases
- Silos
- Pumps

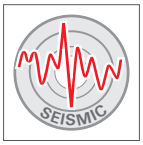
Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and non-cracked

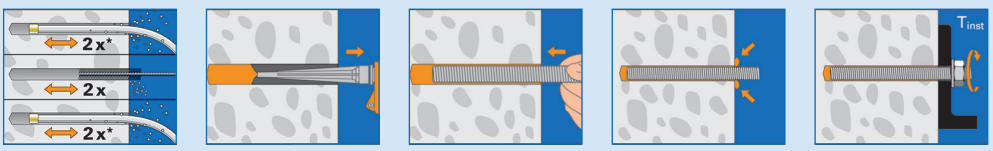






Application examples

Assembly



Straight to the product

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Injection mortar UPM55

Product variants

Name	Art-No.	Shelf life [months]	Content
UPM 55-390	513712	36	1 x cartridge 390ml, 2 x static mixer

Load table

Permissible loads of a single anchor[1] [2] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-11/0418 has to be considered.

Type	Material / surface[3]	Effective anchorage depth	Minimum member thickness	Maximum Installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef} [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	N_{perm}[4] [kN]	V_{perm}[4] [kN]	s_{min}[4] [mm]	c_{min}[4] [mm]	N_{perm}[4] [kN]	V_{perm}[4] [kN]	s_{min}[4] [mm]	c_{min}[4] [mm]
UPM-A/ASTA M8	5.8	60	100	10	5	5.1	40	40	9	5.1	40	40
UPM-A/ASTA M8	5.8	160	190	10	9	5.1	40	40	9	5.1	40	40
UPM-A/ASTA M8	R-70	60	100	10	5	6	40	40	9.9	6	40	40
UPM-A/ASTA M8	R-70	160	190	10	9.9	6	40	40	9.9	6	40	40
UPM-A/ASTA M10	5.8	60	100	20	6.3	8.6	45	45	11.2	8.6	45	45
UPM-A/ASTA M10	5.8	200	230	20	13.8	8.6	45	45	13.8	8.6	45	45
UPM-A/ASTA M10	R-70	60	100	20	6.3	9.2	45	45	11.2	9.2	45	45
UPM-A/ASTA M10	R-70	200	230	20	15.7	9.2	45	45	15.7	9.2	45	45
UPM-A/ASTA M12	5.8	70	100	40	8.8	12	55	55	14.1	12	55	55
UPM-A/ASTA M12	5.8	240	270	40	20.5	12	55	55	20.5	12	55	55
UPM-A/ASTA M12	R-70	70	100	40	8.8	13.7	55	55	14.1	13.7	55	55
UPM-A/ASTA M12	R-70	240	270	40	22.5	13.7	55	55	22.5	13.7	55	55
UPM-A/ASTA M16	5.8	80	116	60	10.2	22.3	65	65	14.3	23.2	65	65
UPM-A/ASTA M16	5.8	320	356	60	37.6	22.3	65	65	37.6	22.3	65	65
UPM-A/ASTA M16	R-70	80	116	60	10.2	24.5	65	65	14.3	25.2	65	65
UPM-A/ASTA M16	R-70	320	356	60	42	25.2	65	65	42	25.2	65	65
UPM-A/ASTA M20	5.8	90	138	120	12.2	29.3	85	85	17.1	34.9	85	85
UPM-A/ASTA M20	5.8	400	448	120	58.6	34.9	85	85	58.6	34.9	85	85
UPM-A/ASTA M20	R-70	90	138	120	12.2	29.3	85	85	17.1	39.4	85	85
UPM-A/ASTA M20	R-70	400	448	120	65.7	39.4	85	85	65.7	39.4	85	85
UPM-A/ASTA M24	5.8	96	152	150	13.4	32.2	105	105	18.8	45.2	105	105
UPM-A/ASTA M24	5.8	480	536	150	84.3	50.9	105	105	84.3	50.9	105	105
UPM-A/ASTA M24	R-70	96	152	150	13.4	32.2	105	105	18.8	45.2	105	105
UPM-A/ASTA M24	R-70	480	536	150	94.3	56.8	105	105	94.3	56.8	105	105
UPM-A/ASTA M30	5.8	120	190	300	18.8	45.1	140	140	26.3	63.2	140	140
UPM-A/ASTA M30	5.8	600	670	300	133.8	80.6	140	140	133.8	80.6	140	140
UPM-A/ASTA M30	R-70	120	190	300	18.8	45.1	140	140	26.3	63.2	140	140
UPM-A/ASTA M30	R-70	600	670	300	150.1	90.2	140	140	150.1	90.2	140	140

[1] Design according to ETAG 001, Technical Report TR029 (for static and quasi-static loads).The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1,4$ are considered. As a single anchor counts, for example, an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. For accurate data, see ETA.

[2] The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short-term up to 80 °C). Drill hole cleaning according to the specifications in the ETA.

[3] Further steel grades, versions and technical data: see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[4] In the case of combinations of tension and shear loads, bending moments, as well as reduced or minimum spacings and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the design method ETAG 001. We recommend using our anchor design software DesignFiX.

Injection mortar UPM55

Load table

Permissible loads of a single anchor[1] [2] in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-11/0418 has to be considered.

Type	Screw Material[3]	Effective anchorage depth	Minimum member thickness	Maximum Installationtorque	Non-cracked concrete Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef} [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	N_{perm}[4] [kN]	V_{perm}[4] [kN]	s_{min}[4] [mm]	c_{min}[4] [mm]
IST M8	5.8	90	120	10	9.1	5.3	55	55
IST M8	R-70	90	120	10	9.93	5.9	55	55
IST M10	5.8	90	125	20	12.9	8.3	65	65
IST M10	R-70	90	125	20	12.9	9.3	65	65
IST M12	5.8	125	165	40	20.2	12	75	75
IST M12	R-70	125	165	40	20.2	13.5	75	75
IST M16	5.8	160	205	80	28.9	22.4	95	95
IST M16	R-70	160	205	80	28.9	25.1	95	95
IST M20	5.8	200	260	120	40.4	35.4	125	125
IST M20	R-70	200	260	120	40.4	35.4	125	125

[1] Design according to ETAG 001, Technical Report TR029 (for static and quasi-static loads).The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1,4$ are considered. As a single anchor counts, for example, an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. For accurate data, see ETA.

[2] The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short-term up to 80 °C). Drill hole cleaning according to the specifications in the ETA.

[3] Further steel grades, versions and technical data: see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[4] In the case of combinations of tension and shear loads, bending moments, as well as reduced or minimum spacings and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the design method ETAG 001. We recommend using our anchor design software DesignFiX.

Injection mortar UPM44

Universal injection mortar for a wide range of applications. Approved for concrete, masonry, seismic, fire protection, and post-installed rebar connections.

Description

The two-component vinylesterhybrid chemical anchor injection system UPM 44 is a professional fastening system designed for particularly high loads in all relevant building materials. When used with anchor rods UPM-A/ASTA or internal threaded anchors UPM-I/IST, UPM 44 boasts a comprehensive approval package for chemical fixings in perforated brick, solid brick, concrete, and aerated concrete. Moreover, this injection mortar stands out due to its multitude of approved system components and its approval for reinforcement connections.

Characteristics

- **Certification/Approval:** ETA Option 1 cracked and uncracked concrete, masonry, post-installed rebar connection, seismic, fire resistance, hammer drilling, hollow drilling, water-filled borehole
- **Load range in concrete:** Tension load 3.9-150.1kN, Shear load 6-90.2kN
- **Load range in masonry:** Tension load 0.34-3.43kN, Shear load 0.26-3.28kN
- **System component:** Anchor rod ASTA/UPM-A, Internal threaded anchor IST/UPM-I, perforated sleeve UPM-SH, concrete reinforcement, commercial threaded rods with 3.1 certificate of compliance
- **Temperature in anchoring base:** -5°C to +40°C
- **Variant:** Cartridge size 360/300/150ml

Applications

- Balcony railings
- Steel beams
- Fire escapes
- Beam anchorage
- Bridge railings
- High racks
- Support feet
- Stair railings
- Roof structures
- Windows

Advantages

- **Comprehensive approval package:** ETA concrete approval option 1, masonry, retroactive reinforcement connection, seismic and fire protection testing
- **High loads:** Universal hybrid mortar with high load-bearing capacity thanks to optimised mortar formula
- **Carefree working:** Suitable for use in water-filled drill holes
- **Efficient in perforated bricks:** The sieve sleeve for use in perforated brick masonry bridges the plaster and minimises mortar consumption

Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked
- Hollow blocks made of lightweight concrete
- Hollow blocks made of concrete
- Perforated bricks
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Aerated concrete
- Solid bricks

Fire resistance classification **R 120**
Anchor types see test report

ETA-02/0022
ETAG 001-5
Option 1 for cracked concrete

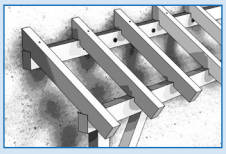
ETA-10/0388
ETAG 001-5
Post-installed rebar connection (TR23)

SEISMIC

ETA-15/0555
ETAG 029
Mauerwerk
Nutzungskategorie b, c oder d und d/d oder w/w

Application examples



Straight to the product

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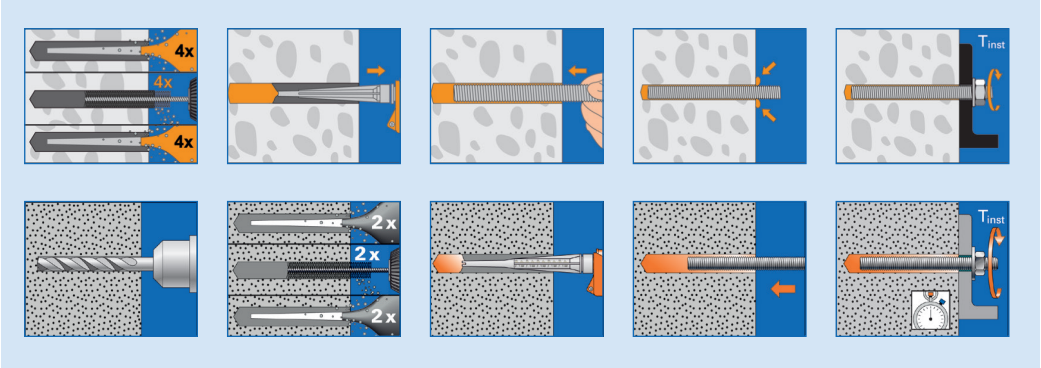
Injection mortar UPM44

Assembly



Product variants

Name	Art-No.	Shelf life [months]	Content
UPM 44-360	000856	18	1 x cartridge 360 ml, 2 x static mixers
UPM 44-300	561442	12	1 x cartridge 300 ml, 2 x static mixers
UPM 44 CX 150 Chemical mortar	000506	12	1 x cartridge 145 ml, 2 x static mixers
UPM 44 PROFI-BOX	000299	18	5 x cartridges 360 ml, 10 x static mixers, 1 x blow-out pump, 1 x brush set, 1 x professional dispensing gun, 1 x professional case
BOX UPM 44-360	547553	18	12 x cartridges 360 ml, 24 x static mixers, 1 x metal dispensing gun, 1 x craftsman's case
UPM 44-360 HWK	000710	18	20 x cartridges 360 ml, 40 x static mixers, 1 x craftsman's case

Variants:
Cartridge professional (360/390 ml): For long storage life and series installation
Cartridge standard (300 ml): For use with standard caulking guns
Cartridge compact (150 ml): For individual fastenings
Pro case (Profi Box): For practical transport and professional organisation, with removable inserts and compartments
Craftsman's box (HWK): For safe storage, robust and stackable

Injection mortar UPM44

Load table

Permissible loads of a single anchor[1] [2] in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-02/0022 has to be considered.

Type	Material / surface[3]	Effective anchorage depth	Minimum member thickness	Maximum Installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef}	h_{min}	$T_{inst,max}$	N_{perm}[4]	V_{perm}[4]	s_{min}[4]	c_{min}[4]	N_{perm}[4]	V_{perm}[4]	s_{min}[4]	c_{min}[4]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]	[kN]	[kN]	[mm]	[mm]
UPM-A/ASTA M8	5.8	60	100	10	3.9	6.3	40	40	7.9	6.3	40	40
UPM-A/ASTA M8	5.8	80	110	10	5.3	6.3	40	40	9	6.3	40	40
UPM-A/ASTA M8	5.8	160	190	10	9	6.3	40	40	9	6.3	40	40
UPM-A/ASTA M8	R-70	60	100	10	3.9	6	40	40	7.9	6	40	40
UPM-A/ASTA M8	R-70	80	110	10	5.3	6	40	40	9.9	6	40	40
UPM-A/ASTA M8	R-70	160	190	10	9.9	6	40	40	9.9	6	40	40
UPM-A/ASTA M10	5.8	60	100	20	5.4	9.7	45	45	9.9	9.7	45	45
UPM-A/ASTA M10	5.8	90	120	20	8.1	9.7	45	45	13.8	9.7	45	45
UPM-A/ASTA M10	5.8	200	230	20	13.8	9.7	45	45	13.8	9.7	45	45
UPM-A/ASTA M10	R-70	60	100	20	5.4	9.2	45	45	9.9	9.2	45	45
UPM-A/ASTA M10	R-70	90	120	20	8.1	9.2	45	45	14.8	9.2	45	45
UPM-A/ASTA M10	R-70	200	230	20	15.7	9.2	45	45	15.7	9.2	45	45
UPM-A/ASTA M12	5.8	70	100	40	7.5	14.3	55	55	13.7	14.3	55	55
UPM-A/ASTA M12	5.8	110	140	40	11.8	14.3	55	55	20.5	14.3	55	55
UPM-A/ASTA M12	5.8	240	270	40	20.5	14.3	55	55	20.5	14.3	55	55
UPM-A/ASTA M12	R-70	70	100	40	7.5	13.7	55	55	13.7	13.7	55	55
UPM-A/ASTA M12	R-70	110	140	40	11.8	13.7	55	55	21.7	13.7	55	55
UPM-A/ASTA M12	R-70	240	270	40	22.5	13.7	55	55	22.5	13.7	55	55
UPM-A/ASTA M16	5.8	80	120	60	11.5	23	65	65	16.8	26.9	65	65
UPM-A/ASTA M16	5.8	125	170	60	18	26.9	65	65	29.9	26.9	65	65
UPM-A/ASTA M16	5.8	320	360	60	37.6	26.9	65	65	37.6	26.9	65	65
UPM-A/ASTA M16	R-70	80	120	60	11.5	23	65	65	16.8	25.2	65	65
UPM-A/ASTA M16	R-70	125	170	60	18	25.2	65	65	29.9	25.2	65	65
UPM-A/ASTA M16	R-70	320	360	60	42	25.2	65	65	42	25.2	65	65
UPM-A/ASTA M20	5.8	90	140	120	14	28	85	85	20	40	85	85
UPM-A/ASTA M20	5.8	170	220	120	28	42.3	85	85	48.3	42.3	85	85
UPM-A/ASTA M20	5.8	400	450	120	58.6	42.3	85	85	58.6	42.3	85	85
UPM-A/ASTA M20	R-70	90	140	120	14	28	85	85	20	39.4	85	85
UPM-A/ASTA M20	R-70	170	220	120	28	39.4	85	85	48.3	39.4	85	85
UPM-A/ASTA M20	R-70	400	450	120	65.7	39.4	85	85	65.7	39.4	85	85
UPM-A/ASTA M24	5.8	96	160	150	15.4	30.8	105	105	22	44.1	105	105
UPM-A/ASTA M24	5.8	210	270	150	33.9	60.6	105	105	67.9	60.9	105	105
UPM-A/ASTA M24	5.8	480	540	150	77.6	60.6	105	105	84.3	60.9	105	105
UPM-A/ASTA M24	R-70	96	160	150	15.4	30.8	105	105	22	44.1	105	105
UPM-A/ASTA M24	R-70	210	270	150	33.9	56.8	105	105	67.9	56.8	105	105
UPM-A/ASTA M24	R-70	480	540	150	77.6	56.8	105	105	94.3	56.8	105	105
UPM-A/ASTA M30	5.8	120	190	300	21.5	43.1	140	140	30.8	61.6	140	140
UPM-A/ASTA M30	5.8	280	350	300	50.3	96	140	140	106.8	96	140	140
UPM-A/ASTA M30	5.8	600	670	300	107.7	96	140	140	133.8	96	140	140
UPM-A/ASTA M30	R-70	120	190	300	21.5	43.1	140	140	30.8	61.6	140	140
UPM-A/ASTA M30	R-70	280	350	300	50.3	90.2	140	140	106.8	90.2	140	140
UPM-A/ASTA M30	R-70	600	670	300	107.7	90.2	140	140	150.1	90.2	140	140

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short term up to 80 °C). Drill hole cleaning as per specification in the ETA. The factor Ψsus for sustained load was taken into account with 1.0.

[3] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[4] In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software DesignFiX.

Injection mortar UPM44

Load table

Permissible loads of a single anchor[1) 2)] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-02/0022 has to be considered.

Type	Screw Material[3)]	Effective anchorag edepth	Minimum member thickness	Maximum Installationtorque	Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef}	h_{min}	$T_{inst,max}$	N_{perm}[4)]	V_{perm}[4)]	s_{min}[4)]	c_{min}[4)]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]
IST M8	5.8	90	120	10	9	5.3	55	55
IST M8	8.8	90	120	10	13.8	8.3	55	55
IST M8	R-70	90	120	10	9.9	5.9	55	55
IST M10	5.8	90	130	20	13.8	8.3	65	65
IST M10	8.8	90	130	20	19	13.3	65	65
IST M10	R-70	90	130	20	15.7	9.3	65	65
IST M12	5.8	125	170	40	20.5	12.1	75	75
IST M12	8.8	125	170	40	23.8	19.3	75	75
IST M12	R-70	125	170	40	22.5	13.5	75	75
IST M16	5.8	160	210	80	35.7	22.4	95	95
IST M16	8.8	160	210	80	35.7	35.8	95	95
IST M16	R-70	160	210	80	35.7	25.1	95	95
IST M20	5.8	200	260	120	54.8	35.4	125	125
IST M20	8.8	200	260	120	54.8	42.9	125	125
IST M20	R-70	200	260	120	54.8	39.4	125	125

1) Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

2) The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short term up to 80 °C). Drill hole cleaning as per specification in the ETA.

3) Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

4) In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software DesignFiX.

Injection mortar UPM44

Load table

Permissible loads[1) 2)] for a single anchor in masonry for pre-positioned installation.

For the design the complete current assessment ETA-15/0555 has to be considered.

Type	Compressive brick strength f_b [N/mm²]	Brick rawdensity ρ [kg/dm³]	Minimum brickdimensions[3)] (L x B x H) [mm]	Effective anchorage depth h_{ef} [mm]	Minimum member thickness h_{min} [mm]	Maximum installation-torque $T_{inst,max}$ [Nm]	Permissible tensile load[4)] N_{perm} [kN]	Permissible shear load[4)] V_{perm} [kN]	Minimum spacing[5)] $s_{min}^{\parallel}$ / $s_{min}^{\perp}$ [mm]	Characteristic resp. minimum edge distance[5)] $c_{cr} = c_{min}$ [mm]
Solid brick Mz, NF, acc. to EN 771-1										
M6	≥ 12	≥ 1,8	240 x 115 x 71	³ 50	115	4	1.14	0.71	240 / 75	100
M8	≥ 12	≥ 1,8	240 x 115 x 71	³ 50	115	10	1.14	0.71	240 / 75	100
M10	≥ 12	≥ 1,8	240 x 115 x 71	80	115	10	1.42	1.14	240 / 75	100
M10	≥ 12	≥ 1,8	240 x 115 x 71	200	240	10	3.43	2.43	240 / 75	100
M12	≥ 12	≥ 1,8	240 x 115 x 71	80	115	10	1.57	1.14	240 / 75	100
M12	≥ 12	≥ 1,8	240 x 115 x 71	200	240	10	2.29	3.28	240 / 75	100
Solid sand-lime brick KS, acc. to EN 771-2										
M6	≥ 12	≥ 1,8	240 x 115 x 71	50	115	3	1.14	0.42	80 / 150	60
M6	≥ 12	≥ 1,8	240 x 115 x 71	100	115	3	1.57	0.89	80 / 300	60
M8	≥ 12	≥ 1,8	240 x 115 x 71	50	115	5	1.14	0.42	80 / 150	60
M8	≥ 12	≥ 1,8	240 x 115 x 71	100	115	5	2.29	0.89	80 / 300	60
M10	≥ 12	≥ 1,8	240 x 115 x 71	100	115	15	1.57	0.57	80 / 300	60
M10	≥ 12	≥ 1,8	240 x 115 x 71	200	240	15	3.42	0.57	80 / 600	60
M12	≥ 12	≥ 1,8	240 x 115 x 71	100	115	15	1.28	0.57	80 / 300	60
M12	≥ 12	≥ 1,8	240 x 115 x 71	200	240	15	3.42	0.57	80 / 600	60
M16	≥ 12	≥ 1,8	240 x 115 x 71	100	115	25	1.57	0.57	80 / 300	60
M16	≥ 12	≥ 1,8	240 x 115 x 71	200	240	25	3.42	0.57	80 / 600	60
Vertically perforated brick Hlz, acc. to EN 771-13										
M6 / M8 with UPM-SH 12x85 K	≥ 12	≥ 1,0	370 x 240 x 237	85	240	2	0.34	0.43	100 / 100	100
M8 / M10 with UPM-SH 16x130 K	≥ 12	≥ 1,0	370 x 240 x 237	130	240	2	0.86	0.57	100 / 100	100
M12 / M16 with UPM-SH 20x130 K	≥ 12	≥ 1,0	370 x 240 x 237	130	240	2	1.14	0.57	100 / 100	100
Perforated sand-lime brick KSL, acc. to EN 771-23										
M6 / M8 with UPM-SH 12x85 K	≥ 12	≥ 1,4	240 x 175 x 113	85	175	2	0.71	0.71	100 / 115	60
M8 / M10 with UPM-SH 16x130 K	≥ 12	≥ 1,4	240 x 175 x 113	130	175	2	1.00	1.29	100 / 115	80
M12 / M16 with UPM-SH 20x85 K	≥ 12	≥ 1,4	240 x 175 x 113	85	175	2	1.00	1.14	100 / 115	80
Lightweight concrete hollow block Hbl, acc. EN 771-33										
M6 / M8 with UPM-SH 12x85 K	≥ 2	≥ 1,0	362 x 240 x 240	85	240	2	0.43	0.26	100 / 240	60
M6 / M8 with UPM-SH 12x85 K	≥ 4	≥ 1,0	362 x 240 x 240	85	240	2	0.86	0.57	100 / 240	60
M8 / M10 with UPM-SH 16x85 K	≥ 2	≥ 1,0	362 x 240 x 240	85	240	2	0.43	0.26	100 / 240	60
M8 / M10 with UPM-SH 16x85 K	≥ 4	≥ 1,0	362 x 240 x 240	85	240	2	0.86	0.57	100 / 240	60
M12 / M16 with UPM-SH 20x200 K	≥ 2	≥ 1,0	362 x 240 x 240	200	240	2	0.71	0.26	100 / 240	60
M12 / M16 with UPM-SH 20x200 K	≥ 4	≥ 1,0	362 x 240 x 240	200	240	2	1.57	0.57	100 / 240	60
Aerated concrete acc. to EN 771-46										
M8	≥ 2	≥ 0,35	-	100	130	1	0.54	0.43	250 / 250	100
M8	≥ 4	≥ 0,50	-	200	230	8	1.07	0.71	80 / 80	100
M10	≥ 2	≥ 0,35	-	100	130	2	0.54	0.43	250 / 250	100
M10	≥ 4	≥ 0,50	-	200	230	12	1.79	0.71	80 / 80	100
M12	≥ 2	≥ 0,35	-	100	130	2	0.71	0.54	250 / 250	100
M12	≥ 4	≥ 0,50	-	200	230	16	1.79	0.71	80 / 80	100
M16	≥ 2	≥ 0,35	-	100	130	2	0.71	0.43	250 / 250	100
M16	≥ 4	≥ 0,50	-	200	230	20	1.79	0.71	80 / 80	100

1) The required partial safety factors for material resistance as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. Load values are valid for zinc-plated steel, stainless steel R and highly corrosion resistant steel HCR. In perforated bricks and hollow blocks threaded rod UPM-A/ASTA in combination with perforated sleev UPM-SH.

2) The given loads are valid for installation and use of fixations in dry masonry - use category d/d - for temperatures in the substrate up to 50 °C (resp. short term up to 80 °C) and drill hole cleaning according to assessment. The given brick types in combination with the permissible loads are an extract of the assessment.

3) More information about, e.g. hole patterns, assortment of perforated sleeves UPM-SH see assessment.

4) In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete assessment.

5) Minimum feasible spacing resp. edge distance. Details as well as to the distances to joints see assessment.

6) Cylindrical drill hole.

Injection mortar UPM33

Cost-effective injection system for standard fixings. Approved for concrete, masonry, and fire protection.

Description

The economical injection mortar for standard fastenings. Suitable for concrete, solid and perforated building materials. For medium and high loads. Approved for concrete, masonry and fire protection. Available product variants Standard and 'fast-curing' (Express). Selectable product features Cartridge size 360/300/150 ml. Additional system components Anchor rods (UPM-A/ASTA) or internal thread anchors (UPM-I/IST). Used in push-through or through-hole installation. Characterised by secure anchoring, fastening close to the edge and efficiency in hollow bricks.

Characteristics

- **Certification/Approval:** ETA Option 1 cracked and uncracked concrete, masonry, fire resistance, hammer drilling
- **Suitable for:** Hollow drilling, water-filled borehole
- **Load range in concrete:** Tension load 3.4-150.1kN, Shear load 2.9-90.2kN
- **Load range in masonry:** Tension load 0.54-3.43kN, Shear load 0.43-3.29kN
- **System component:** Anchor rod ASTA/UPM-A, internal threaded anchor IST/UPM-I, perforated sleeve UPM-SH, commercial threaded rods with 3.1 certificate of compliance
- **Variant:** Standard, rapid-curing (Express)
- **Temperature in anchoring base:** -15°C to +40°C
- **Cartridge size:** 360/300/150ml

Applications

- Steel beams
- Roof structures
- Canopy
- Carport
- Balcony railings
- Stair railings
- Bridge railings
- Beam anchorage
- Windows
- Facade construction

Advantages

- **Secure anchoring:** ETA approval for cracked concrete, ETA approval for masonry and fire protection testing
- **Fastening close to edges:** The expansion pressure-free fastening allows for small edge and centre distances and prevents installation damage in the edge area
- **Efficiency in perforated bricks:** The sieve sleeve for use in perforated brick masonry bridges the plaster and minimises mortar consumption
- **Flexible working:** By changing the static mixer, opened cartridges can be reused

Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked
- Hollow blocks made of lightweight concrete
- Hollow blocks made of concrete
- Perforated bricks & solid bricks
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Aerated concrete

Fire resistance classification
R 120
Anchor types see test report

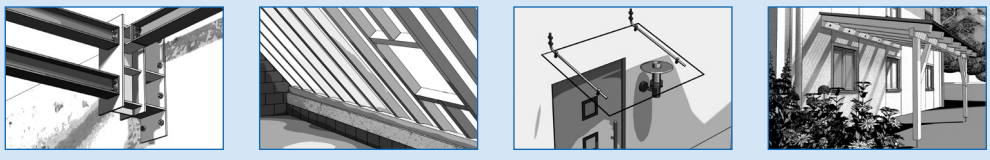
ETA-10/0171
ETAG 001-5
Option 1 for cracked concrete

ETA-15/0554
ETAG 029
Masonry
Use categories b, c or d and d/d or w/w

Straight to the product

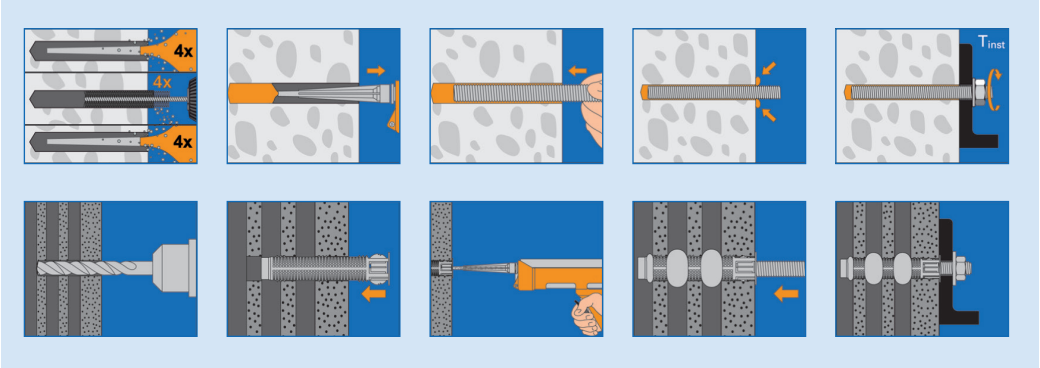
upat.com/en-upm33

Application examples



Injection mortar UPM33

Assembly



Product variants

Name	Art-No.	Shelf life [months]	Content
UPM 33-360	509167	18	1 x cartridge 360 ml, 2 x static mixers
UPM 33-300	509168	12	1 x cartridge 300 ml, 2 x static mixers
UPM 33-150 CX	542403	12	1 x cartridge 145 ml, 2 x static mixers
UPM 33 Express 360	520257	15	1 x cartridge 360 ml, 2 x static mixers
UPM 33 Express 300	520256	12	1 x cartridge 300 ml, 2 x static mixers
UPM 33-360 Starter Box	572989	--	5 x 509167 injection mortar UPM 33x360, 1 x 551767 steel brush UP BS ø12, 1 x 551769 steel brush UP BS ø16/18, 1 x 001177 blow-out pump UPM AB, 1 x 512604 metal dispensing gun UPM AM
UPM 33-300 Starter Box	572990	--	5 x 509168 injection mortar UPM 33-300, 1 x 551767 steel brush UP BS ø12, 1 x 551769 steel brush UP BS ø16/18, 1 x 001177 blow-out pump UPM AB, 1 x 512604 dispensing device metal UPM AM
BOX UPM 33-360	547535	18	12 x cartridges 360 ml, 24 x static mixers, 1 x professional dispensing gun, 1 x craftsman's case
BOX UPM 33-300	547524	12	17 x cartridges 300 ml, 34 x static mixers, 1 x professional dispensing gun, 1 x craftsman's case
UPM 33-360 HWK	512207	18	20 x cartridges 360 ml, 40 x static mixers, 1 x craftsman's case
UPM 33-360 Express HWK	551937	15	20 x cartridges 360 ml, 40 x static mixers, 1 x craftsman's case

Variants:
Cartridge professional (360/390 ml): For long shelf life and series installation
Cartridge standard (300 ml): For use with standard caulking guns
Cartridge compact (150 ml): For individual fastenings
Craftsman's box (HWK): For safe storage, robust and stackable

Injection mortar UPM33

Load table

Permissible loads of a single anchor[1) 2)] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-10/0171 has to be considered.

Type	Material / surface[3)]	Effective anchorage depth	Minimum member thickness	Maximum Installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef}	h_{min}	$T_{inst,max}$	N_{perm}[4)]	V_{perm}[4)]	s_{min}[4)]	c_{min}[4)]	N_{perm}[4)]	V_{perm}[4)]	s_{min}[4)]	c_{min}[4)]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]	[kN]	[kN]	[mm]	[mm]
UPM-A/ASTA M6	5.8	50	100	5	-	-	-	-	3.4	2.9	40	40
UPM-A/ASTA M6	5.8	60	100	5	-	-	-	-	4	2.9	40	40
UPM-A/ASTA M6	5.8	72	110	5	-	-	-	-	4.8	2.9	40	40
UPM-A/ASTA M6	R-70	50	100	5	-	-	-	-	3.4	3.2	40	40
UPM-A/ASTA M6	R-70	60	100	5	-	-	-	-	4	3.2	40	40
UPM-A/ASTA M6	R-70	72	110	5	-	-	-	-	4.8	3.2	40	40
UPM-A/ASTA M8	5.8	60	100	10	-	-	-	-	6.6	5.1	40	40
UPM-A/ASTA M8	5.8	80	110	10	-	-	-	-	8.8	5.1	40	40
UPM-A/ASTA M8	5.8	160	190	10	-	-	-	-	9	5.1	40	40
UPM-A/ASTA M8	R-70	60	100	10	-	-	-	-	6.6	6	40	40
UPM-A/ASTA M8	R-70	80	110	10	-	-	-	-	8.8	6	40	40
UPM-A/ASTA M8	R-70	160	190	10	-	-	-	-	9.9	6	40	40
UPM-A/ASTA M10	5.8	60	100	20	4.5	8.6	45	45	8.2	8.6	45	45
UPM-A/ASTA M10	5.8	90	120	20	6.7	8.6	45	45	12.3	8.6	45	45
UPM-A/ASTA M10	5.8	200	230	20	13.8	8.6	45	45	13.8	8.6	45	45
UPM-A/ASTA M10	R-70	60	100	20	4.5	9.2	45	45	8.2	9.2	45	45
UPM-A/ASTA M10	R-70	90	120	20	6.7	9.2	45	45	12.3	9.2	45	45
UPM-A/ASTA M10	R-70	200	230	20	15	9.2	45	45	15.7	9.2	45	45
UPM-A/ASTA M12	5.8	70	100	40	6.3	12	55	55	11.4	12	55	55
UPM-A/ASTA M12	5.8	110	140	40	9.9	12	55	55	18.1	12	55	55
UPM-A/ASTA M12	5.8	240	270	40	20.5	12	55	55	20.5	12	55	55
UPM-A/ASTA M12	R-70	70	100	40	6.3	13.7	55	55	11.4	13.7	55	55
UPM-A/ASTA M12	R-70	110	140	40	9.9	13.7	55	55	18.1	13.7	55	55
UPM-A/ASTA M12	R-70	240	270	40	21.5	13.7	55	55	22.5	13.7	55	55
UPM-A/ASTA M16	5.8	80	120	60	9.6	22.3	65	65	14	22.3	65	65
UPM-A/ASTA M16	5.8	125	170	60	15	22.3	65	65	24.9	22.3	65	65
UPM-A/ASTA M16	5.8	320	360	60	37.6	22.3	65	65	37.6	22.3	65	65
UPM-A/ASTA M16	R-70	80	120	60	9.6	23	65	65	14	25.2	65	65
UPM-A/ASTA M16	R-70	125	170	60	15	25.2	65	65	24.9	25.2	65	65
UPM-A/ASTA M16	R-70	320	360	60	38.3	25.2	65	65	42	25.2	65	65
UPM-A/ASTA M20	5.8	90	140	120	11.7	28	85	85	16.7	34.9	85	85
UPM-A/ASTA M20	5.8	170	220	120	23.3	34.9	85	85	40.3	34.9	85	85
UPM-A/ASTA M20	5.8	400	450	120	54.9	34.9	85	85	58.6	34.9	85	85
UPM-A/ASTA M20	R-70	90	140	120	11.7	28	85	85	16.7	39.4	85	85
UPM-A/ASTA M20	R-70	170	220	120	23.3	39.4	85	85	40.3	39.4	85	85
UPM-A/ASTA M20	R-70	400	450	120	54.9	39.4	85	85	65.7	39.4	85	85
UPM-A/ASTA M24	5.8	96	160	150	-	-	-	-	18.4	44.1	105	105
UPM-A/ASTA M24	5.8	210	270	150	-	-	-	-	56.5	50.9	105	105
UPM-A/ASTA M24	5.8	480	540	150	-	-	-	-	84.3	50.9	105	105
UPM-A/ASTA M24	R-70	96	160	150	-	-	-	-	18.4	44.1	105	105
UPM-A/ASTA M24	R-70	210	270	150	-	-	-	-	56.5	56.8	105	105
UPM-A/ASTA M24	R-70	480	540	150	-	-	-	-	94.3	56.8	105	105
UPM-A/ASTA M30	5.8	120	190	300	-	-	-	-	25.7	61.6	140	140
UPM-A/ASTA M30	5.8	280	350	300	-	-	-	-	89	80.6	140	140
UPM-A/ASTA M30	5.8	600	670	300	-	-	-	-	133.8	80.6	140	140
UPM-A/ASTA M30	R-70	120	190	300	-	-	-	-	25.7	61.6	140	140
UPM-A/ASTA M30	R-70	280	350	300	-	-	-	-	89	90.2	140	140
UPM-A/ASTA M30	R-70	600	670	300	-	-	-	-	150.1	90.2	140	140

[1)] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

Injection mortar UPM33

[2] The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short term up to 80 °C). Drill hole cleaning as per specification in the ETA. The factor Ψsus for sustained load was taken into account with 1.0.

[3] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[4] In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software DesignFiX.

Load table

Permissible loads of a single anchor[1] [2] in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-10/0171 has to be considered.

Type	Screw Material[3]	Effective anchorage depth	Minimum member thickness	Maximum Installa-tiontorque	Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef} [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	N_{perm}[4] [kN]	V_{perm}[4] [kN]	s_{min}[4] [mm]	c_{min}[4] [mm]
IST M8	5.8	90	120	10	9	5.3	55	55
IST M8	8.8	90	120	10	13.8	8.3	55	55
IST M8	R-70	90	120	10	9.9	5.9	55	55
IST M10	5.8	90	130	20	13.8	8.3	65	65
IST M10	8.8	90	130	20	16.7	13.3	65	65
IST M10	R-70	90	130	20	15.7	9.3	65	65
IST M12	5.8	125	170	40	20.5	12.1	75	75
IST M12	8.8	125	170	40	26.6	19.3	75	75
IST M12	R-70	125	170	40	22.5	13.5	75	75
IST M16	5.8	160	210	80	37.6	22.4	95	95
IST M16	8.8	160	210	80	39.5	30.9	95	95
IST M16	R-70	160	210	80	39.5	25.1	95	95
IST M20	5.8	200	260	120	55.2	35.4	125	125
IST M20	8.8	200	260	120	55.2	42.9	125	125
IST M20	R-70	200	260	120	55.2	39.4	125	125

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of γL = 1.4 are considered. As a single anchor counts e.g. an anchor with a spacing s ≥ 3 x h_{ef} and an edge distance c ≥ 1.5 x h_{ef}. Accurate data see ETA.

[2] The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short term up to 80 °C). Drill hole cleaning as per specification in the ETA. The factor Ψsus for sustained load was taken into account with 1.0.

[3] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[4] In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software DesignFiX.

Injection mortar UPM33

Load table

Permissible loads of a single anchor[1) 2)] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-10/0171 has to be considered.

Type	"Compressive brick strength" fb [N/mm²]	"Brick raw density" r [kg/dm³]	"Minimum brick dimensions[3)]" (L x B x H) [mm]	"Effective anchorage depth" h_{ef} [mm]	"Minimum member thickness" h_{min} [mm]	"Maximum installation torque" $T_{inst,max}$ [Nm]	"Permissible tensile load[4)]" N_{perm} [kN]	"Permissible shear load[4)]" V_{perm} [kN]	Minimum spacing[5)] $s_{min}\parallel$ / $s_{min}\perp$ [mm]	"Characteristic resp. minimum edge distance[5)]" ccr = c_{min} [mm]
Solid brick Mz, NF, acc. to EN 771-1										
M8	≥ 12	≥ 1,8	240 x 115 x 71	≥ 50	115	10	1,14	0,71	240 / 75	100
M10	≥ 12	≥ 1,8	240 x 115 x 71	80	115	10	1,43	1,14	240 / 75	100
M10	≥ 12	≥ 1,8	240 x 115 x 71	200	240	10	3,43	2,43	240 / 75	100
M12	≥ 12	≥ 1,8	240 x 115 x 71	80	115	10	1,57	1,14	240 / 75	100
M12	≥ 12	≥ 1,8	240 x 115 x 71	200	240	10	2,29	3,29	240 / 75	100
Solid sand-lime brick KS, acc. to EN 771-2										
M8	≥ 12	≥ 1,8	240 x 115 x 71	50	115	5	1,14	0,43	80 / 150	60
M8	≥ 12	≥ 1,8	240 x 115 x 71	100	240	5	2,29	0,86	80 / 300	60
M10	≥ 12	≥ 1,8	240 x 115 x 71	100	240	15	1,57	0,57	80 / 300	60
M10	≥ 12	≥ 1,8	240 x 115 x 71	200	240	15	3,43	0,57	80 / 600	60
M12	≥ 12	≥ 1,8	240 x 115 x 71	100	240	15	1,29	0,57	80 / 300	60
M12	≥ 12	≥ 1,8	240 x 115 x 71	200	240	15	3,43	0,57	80 / 300	60
Perforated sand-lime brick KSL, acc. to EN 771-23										
M8 with UPM-SH 12x85 K	≥ 12	≥ 1,4	240 x 175 x 113	85	175	2	0,71	0,71	100 / 115	60
M8 / M10 with UPM-SH 16x85 K	≥ 12	≥ 1,4	240 x 175 x 113	85	175	2	0,86	1,29	100 / 115	80
M12 with UPM-SH 20x85 K	≥ 12	≥ 1,4	240 x 175 x 113	85	175	2	0,86	1,29	100 / 115	80
M8 / M10 with UPM-SH 16x130 K	≥ 12	≥ 1,4	240 x 175 x 113	130	175	2	0,86	1,29	100 / 115	80
Lightweight concrete hollow block Hbl, acc. EN 771-13										
M8 with UPM-SH 12x85 K	≥ 10	≥ 0,9	240 x 175 x 113	85	175	2	1,14	1,14	240 / 115	100
M8 / M10 with UPM-SH 16x85 K	≥ 10	≥ 0,9	240 x 175 x 113	85	175	2	1	1,57	240 / 115	100
M12 with UPM-SH 20x85 K	≥ 10	≥ 0,9	240 x 175 x 113	85	175	2	1,43	1,71	240 / 115	100
M8 / M10 with UPM-SH 16x130 K	≥ 10	≥ 0,9	240 x 175 x 113	130	175	2	1,43	1,57	240 / 115	100
M12 with UPM-SH 20x130 K	≥ 10	≥ 0,9	240 x 175 x 113	130	175	2	1,43	1,71	240 / 115	100
Aerated concrete acc. to EN 771-46										
M8	≥ 2	≥ 0,35	-	≥ 100	130	1	0,54	0,43	250 / 250	100
M8	≥ 4	≥ 0,50	-	200	230	8	1,07	0,71	80 / 80	100
M10	≥ 2	≥ 0,35	-	≥ 100	130	2	0,54	0,43	250 / 250	100
M10	≥ 4	≥ 0,50	-	200	230	12	1,79	0,71	80 / 80	100
M12	≥ 2	≥ 0,35	-	≥ 100	130	2	0,71	0,54	250 / 250	100
M12	≥ 4	≥ 0,50	-	200	230	16	1,79	0,71	80 / 80	100

[1)] The required partial safety factors for material resistance as well as a partial safety factor for load actions of γL = 1.4 are considered. Load values are valid for zinc-plated steel, stainless steel R and highly corrosion resistant steel HCR. In perforated bricks and hollow blocks threaded rod UPM-A/ASTA in combination with perforated sleev UPM-SH.

[2)] The given loads are valid for installation and use of fixations in dry masonry - use category d/d - for temperatures in the substrate up to 50 °C (resp. short term up to 80 °C) and drill hole cleaning according to assessment. The given brick types in combination with the permissible loads are an extract of the assessment.

[3)] More information about, e.g. hole patterns, assortment of perforated sleeves UPM-SH see assessment.

[4)] In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete assessment.

[5)] Minimum feasible spacing resp. edge distance. Details as well as to the distances to joints see assessment.

[6)] Cylindrical drill hole.

Injection mortar UPM11

Cost-effective injection mortar for simple fixings. Without approval. Suitable for concrete and masonry.

Description

The affordable injection mortar for simple fastenings. Suitable for concrete, solid and perforated building materials. For medium loads. Selectable product features Cartridge size 360/300 ml. Additional system components Anchor rods (UPM-A/ASTA) or internal thread anchors (UPM-I/IST). Used in pre-insertion or push-through installation. Features inexpensive anchoring, fastening close to edges and flexible working.

Characteristics

- **Suitable for:** Concrete, masonry, hammer drilling
- **Load range in masonry:** Tension load 0.6-1.7kN, shear load 0.6-1.7kN
- **System component:** Anchor rod ASTA/UPM-A, internal threaded anchor IST/UPM-I, perforated sleeve UPM-SH
- **Temperature in anchoring base:** 0°C to 40°C
- **Variant:** Cartridge size 360/300 ml
- **Accessories:** Metal dispenser gun UPM MR or professional dispenser gun UPM DM P, Blow-out pump UPM AB, Cleaning brush UP BS

Advantages

- **Cost-effective anchoring:** The cost-effective mortar for non-approval-relevant fastening
- **Fastening close to edges:** The expansion pressure-free fastening allows for small edge and centre distances and prevents installation damage in the edge area
- **Flexible working:** By changing the static mixer, opened cartridges can be reused

Applications

- Lighting strips
- Screen brackets
- Handrails
- Garden gates
- Speakers

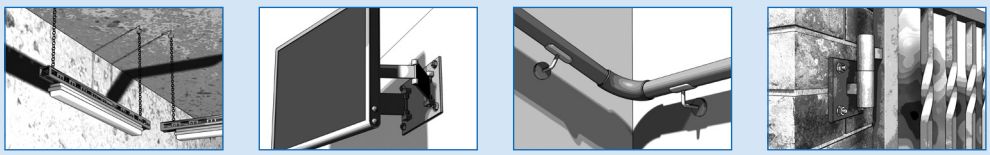
Materials

- Concrete
- Perforated & solid bricks
- Hollow blocks
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Aerated concrete
- Solid lightweight concrete blocks

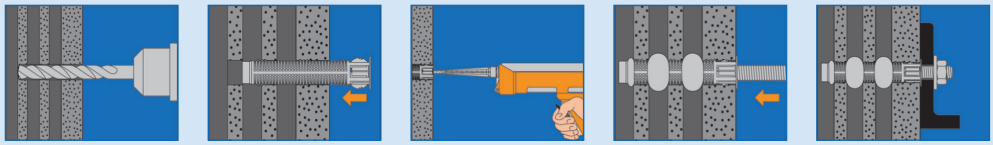
Straight to the product

upat.com/en-upm11

Application examples



Assembly



Injection mortar UPM11

Product variants

Name	Art-No.	Shelf life [months]	Content
UPM 11-360	000640	15	1 x cartridge 360 ml, 2 x static mixers
UPM 11-300	093834	12	1 x cartridge 300 ml, 2 x static mixers

Cartridge professional (360/390 ml): For long storage life and series installation
Cartridge standard (300 ml): For use with standard caulking guns

Load table

Recommended loads[1) 2)] for a single anchor in masonry for pre-positioned installation.

Type	Compressive brick strength f_b [N/mm²]	Drill hole diamater d_0 [mm]	Minimum drill hole depth h_{0min} [mm]	Effective anchorage depth h_{ef} [mm]	Content UPM 11 [scale units]	Maximum installationtorque $T_{inst,max}$ [Nm]	Recommended load F_{rec} [kN]	Minimum spacing $s_{min}^{\parallel}$ / $s_{min}^{\perp}$ [mm]	Minimum edge distance ccr = c_{min} [mm]
Solid brick Mz									
M6	≥ 12	8	80	75	3	4	1)3)	240 / 75	100
M8	≥ 12	10	80	75	3	4	1)3)	240 / 75	100
M10	≥ 12	12	80	75	4	4	1.7	240 / 75	100
M12	≥ 12	14	80	75	5	4	1.7	240 / 75	100
Solid sand-lime brick KS									
M6	≥ 12	8	80	75	3	4	1)3)	80 / 300	60
M8	≥ 12	10	80	75	3	4	1)3)	80 / 300	60
M10	≥ 12	12	80	75	4	4	1.7	80 / 300	60
M12	≥ 12	14	80	75	5	4	1.7	80 / 300	60
Perforated sand-lime brick KSL									
M6 mit UPM-SH 12x50 K	≥ 12	12	55	50	5	4	0.8	100 / 115	60
M8 mit UPM-SH 12x85 K	≥ 12	12	90	85	10	4	0.8	100 / 115	60
M8 mit UPM-SH 16x130 K	≥ 12	16	135	130	15	4	0.8	100 / 115	80
M10 mit UPM-SH 16x85 K	≥ 12	16	90	85	12	4	0.8	100 / 115	80
M12 mit UPM-SH 20x85 K	≥ 12	20	90	85	15	4	0.8	100 / 115	80
Vertical perforated brick HLz									
M6 mit UPM-SH 12x50 K	≥ 12	12	55	50	5	4	0.8	240 / 115	100
M8 mit UPM-SH 12x85 K	≥ 12	12	90	85	10	4	0.8	240 / 115	100
M8 mit UPM-SH 16x130 K	≥ 12	16	135	130	15	4	0.8	240 / 115	100
M10 mit UPM-SH 16x85 K	≥ 12	16	90	85	12	4	0.8	240 / 115	100
M12 mit UPM-SH 20x85 K	≥ 12	20	90	85	15	4	0.8	240 / 115	100
Lightweight concrete hollow block Hbl									
M6 mit UPM-SH 12x50 K	≥ 4	12	55	50	5	4	0.6	250 / 250	100
M8 mit UPM-SH 12x85 K	≥ 4	12	90	85	10	4	0.6	250 / 250	100
M8 mit UPM-SH 16x130 K	≥ 4	16	135	130	15	4	0.6	250 / 250	100
M10 mit UPM-SH 16x85 K	≥ 4	16	90	85	12	4	0.6	250 / 250	100
M12 mit UPM-SH 20x85 K	≥ 4	20	90	85	15	4	0.6	250 / 250	100
Concrete hollow block Hbn									
M6 mit UPM-SH 12x50 K	≥ 4	12	55	50	5	4	0.6	250 / 250	100
M8 mit UPM-SH 12x85 K	≥ 4	12	90	85	10	4	0.6	250 / 250	100
M8 mit UPM-SH 16x130 K	≥ 4	16	135	130	15	4	0.6	250 / 250	100
M10 mit UPM-SH 16x85 K	≥ 4	16	90	85	12	4	0.6	250 / 250	100
M12 mit UPM-SH 20x85 K	≥ 4	20	90	85	15	4	0.6	250 / 250	100

1) The application conditions of the manufacturer must be taken into account. In perforated and hollow bricks, use the ASTA/UPM-A anchor rod in combination with the UPM-SH sieve sleeve.

2) Recommended anchor load capacities for tensile load, transverse load, and oblique tensile load at any angle without considering the influence of axial and edge distances.

3) For masonry with superimposed load, the recommended load can be increased to 1.4 kN.

Bonded anchor UKA3 Plus

Cartridge system - As simple as it is secure. Approved for concrete, fire protection, and water-filled drill holes.

Fire resistance classification
R 120
Anchor types see test report

ETA-17/0197
ETAG 001-5
Option 1 for cracked concrete

Description

The Upat bonded anchor UKA3 Plus is a proven, highly efficient fastening system consisting of a mortar glass capsule and the anchor rod ASTA or the internal threaded anchor IST. The system has ETA approval for both cracked and un-cracked concrete and is also suitable for use in dense natural stone. Common applications include heavy steel structures, railings, stairs, support feet and silos.

Characteristics

- **Certification/Approval:** Concrete, Fire resistance, Hammer drilling, Hollow drilling, Drill hole cleaning without blowing out and brushing, Water-filled borehole
- **Load range in concrete:** Tension load 3.9-61kN, Shear load 5.1-56.8kN
- **System component:** Anchor rod ASTA, Internal threaded anchor IST
- **Temperature in anchoring base:** -15°C to +40°C
- **Feature:** Compatible with ASTA M8-M24/IST M8-M20

Applications

- Balcony railings
- Support feet
- Steel beams
- Lifts
- Stair railings
- High racks
- Beam anchorage
- Silos
- Pumps
- Cable support systems

Advantages

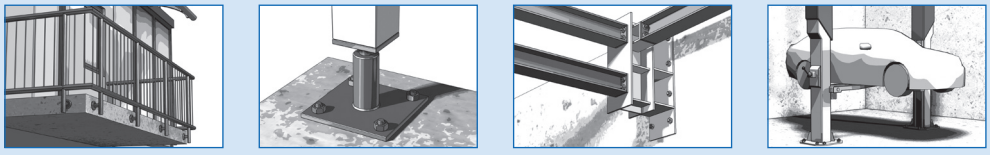
- **Approved Fastening:** According to European Technical Assessment for cracked and un-cracked concrete (ETA Option 1) and fire protection testing
- **No Hole Cleaning Required:** The glass cartridge clings to the borehole wall, eliminating the need for borehole cleaning
- **Highly efficient:** Not too much, not too less- one borehole, one capsule, always the right amount of mortar - no waste
- **Work Without Worries:** Approved for use in water-filled boreholes
- **Long Shelf Life:** Up to 36 months

Materials

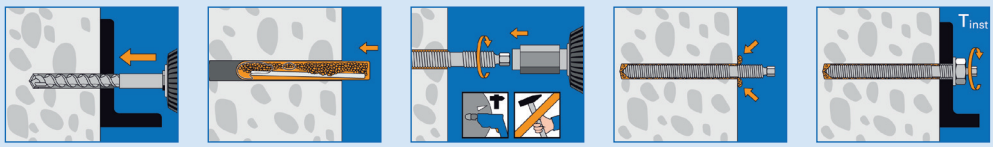
Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked

Application examples



Assembly



Straight to the product

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Bonded anchor UKA3 Plus

Product variants

Name	Art-No.	Drill diameter [mm]	Shelf life [months]	Min. drill hole depth	Min. effect. anchorage depth	Match	Sales unit
UKA 3 Plus M 8	539948	10	36	80	80	ASTA M8	10
UKA 3 Plus M 10	539949	12 for ASTA / 14 for IST	36	90	90	ASTA M10 / IST M8	10
UKA 3 Plus M 12	539950	14 for ASTA / 16 for IST	36	110	110	ASTA M12 / IST M10	10
UKA 3 Plus M 14	539951	16	36	120	120	ASTA M14	10
UKA 3 Plus M 16	539952	18 for ASTA / 20 for IST	36	125	125	ASTA M16 / IST M12	10
UKA 3 Plus M 20/22	539954	24	36	170	170	ASTA M20/22	10
UKA 3 Plus M 24	539955	28 for ASTA / 32 for IST	36	210	210	ASTA M24 / IST M20	5

Load table

Permissible loads of a single anchor[1) 2)] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-17/0197 has to be considered.

Type	Material / surface[3)]	Effective anchorage depth	Minimum member thickness	Maximum Installation-torque	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
		h_{ef} [mm]	h_{min} [mm]	$T_{inst,max}$ [Nm]	N_{perm}[4)] [kN]	V_{perm}[4)] [kN]	s_{min}[4)] [mm]	c_{min}[4)] [mm]	N_{perm}[4)] [kN]	V_{perm}[4)] [kN]	s_{min}[4)] [mm]	c_{min}[4)] [mm]
ASTA M8	5.8	80	110	10	-	-	-	-	8.4	5.1	40	40
ASTA M8	R-70	80	110	10	-	-	-	-	8.4	6	40	40
ASTA M10	5.8	90	120	20	3.9	8.6	45	45	11.8	8.6	45	45
ASTA M10	R-70	90	120	20	3.9	9.2	45	45	11.8	9.2	45	45
ASTA M12	5.8	110	140	40	5.8	12	55	55	17.3	12	55	55
ASTA M12	R-70	110	140	40	5.8	13.7	55	55	17.3	13.7	55	55
ASTA M16	5.8	125	170	60	8.7	20.9	65	65	26.2	22.3	65	65
ASTA M16	R-70	125	170	60	8.7	20.9	65	65	26.2	35.2	65	65
ASTA M20/22	5.8	170	220	120	14.8	34.9	85	85	44.4	34.9	85	85
ASTA M20/22	R-70	170	220	120	14.8	35.6	85	85	44.4	39.4	85	85
ASTA M24	5.8	210	270	150	22	50.9	105	105	61	50.9	105	105
ASTA M24	R-70	210	270	150	22	52.8	105	105	61	56.8	105	105

1) Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

2) The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 24 °C (resp. short term up to 40 °C). Drill hole cleaning as per specification in the ETA. The factor Ψsus for sustained load was taken into account with 1.0.

3) Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

4) In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor dimensioning software DesignFiX.

Bonded anchor UKA3 Plus

Load table

Permissible loads of a single anchor[1] [2] in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-17/0197 has to be considered.

Type	"Material / surface[3]"	"Effective anchorage depth"	"Minimum member thickness"	"Maximum Installation torque"	Cracked concrete "Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads"				Non-cracked concrete "Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads"			
		h_{ef}	h_{min}	$T_{inst,max}$	N_{perm}[4]	V_{perm}[4]	s_{min}[4]	c_{min}[4]	N_{perm}[4]	V_{perm}[4]	s_{min}[4]	c_{min}[4]
		[mm]	[mm]	[Nm]	[kN]	[kN]	[mm]	[mm]	[kN]	[kN]	[mm]	[mm]
IST M8	5.8	90	120	10	4.7	5.3	55	55	9	5.3	55	55
IST M8	R-70	90	120	10	4.7	5.9	55	55	9.9	5.9	55	55
IST M10	5.8	90	126	20	6.3	8.3	65	65	13.8	8.3	65	65
IST M10	R-70	90	126	20	6.3	9.3	65	65	15.7	9.3	65	65
IST M12	5.8	125	165	40	9.8	12.1	75	75	20.5	12.1	75	75
IST M12	R-70	125	165	40	9.8	13.5	75	75	22.5	13.5	75	75
IST M20	5.8	200	264	120	24.4	35.4	125	125	56.7	35.4	125	125
IST M20	R-70	200	264	120	24.4	39.4	125	125	56.7	39.4	125	125

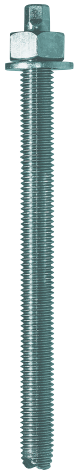
[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 24 °C (resp. short term up to 40 °C). Drill hole cleaning as per specification in the ETA. The factor Ψsus for sustained load was taken into account with 1.0.

[3] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, zink plated steel (zp); for damp interiors and for outdoor use, stainless steel (R).

[4] In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor dimensioningn software DesignFiX.

Anchor rods UPM-A/ASTA



Proven anchor rods for chemical fixings.

Description

The tried-and-tested anchor rods for chemical fastenings. Suitable for concrete, solid and perforated building materials. For medium and high loads. Available product variants: Cartridge system (ASTA) and cartridge system (UPM-A). Available in stainless steel (R/A4), zink plated steel (zp) and hot-dip galvanized steel (hdg). Selectable product features: thread M6-M30 and total length 75-380 mm. Additional system components: injection mortar (UPM 55/UPM 44/UPM 33/UPM 11) or composite anchors (UKA3 Plus). Used in pre-insertion or push-through installation.

Characteristics

- **System component:** Injection mortars UPM 55/UPM 44/UPM 33/UPM 11, resin capsule UKA3 Plus
- **Suitable for:** Concrete, masonry
- **Variant:** Cartridge/capsule system (ASTA), Cartridge system (UPM-A)
- **Material:** Zinc plated steel (zp), Stainless steel (R), Hot-dip galvanized steel (hdg)
- **Feature:** Thread M6-M30, Total length 75-380mm

Advantages

- Approved for use in cracked and non-cracked concrete, solid masonry, perforated masonry and aerated concrete, depending on the system
- The external hexagon of the ASTA anchor rod enables quick and easy installation with a power tool.

Applications

- Bridge railings
- Pumps
- Lift platforms
- Balcony railings
- Stair railings
- Steel beams
- High shelves
- Silos
- Reinforcing steel
- Underwater applications

Materials

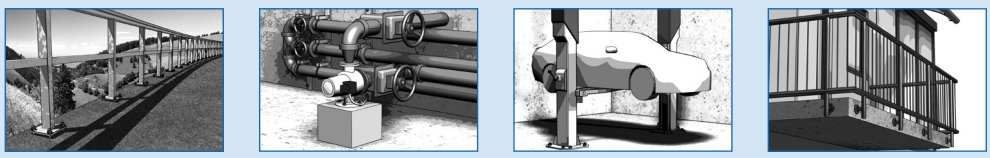
The anchor rods are approved or suitable for use with Upat injection cartridges and glass capsules for different building materials.

EDELSTAHL® Rost frei
INOX STAINLESS STEEL

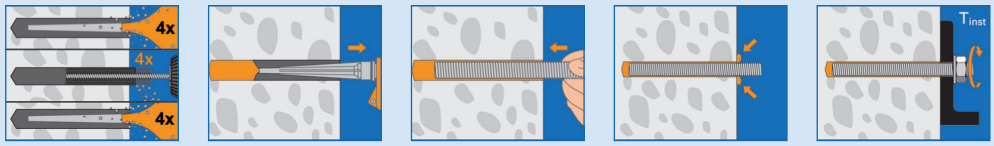
Straight to the product

upat.com/en-asta

Application examples



Assembly



Anchor rods UPM-A/ASTA

Product variants

Name	Art.-No. (zp)	Art.-No. (R)	Art.-No. (hdg)	Thread size (mm)	Thread	Sales unit (zp)	Sales unit (R)	Sales unit (hdg)
ASTA M 8 x 110	007830	007845	-	8	M8	10	10	-
ASTA M 8 x 150	007860	-	-	8	M8	10	-	-
ASTA M 8 x 170	-	007862	-	8	M8	-	10	-
ASTA M 8 x 190	007861	007838	-	8	M8	10	10	-
ASTA M 10 x 130	007831	007846	008201	10	M10	10	10	10
ASTA M 10 x 150	-	007864	-	10	M10	-	10	-
ASTA M 10 x 165	007819	007843	-	10	M10	10	10	-
ASTA M 10 x 190	007820	007865	-	10	M10	10	10	-
ASTA M 10 x 250	-	007867	-	10	M10	-	10	-
ASTA M 10 x 300	-	007868	-	10	M10	-	10	-
ASTA M 10 x 350	-	551720	-	10	M10	-	10	-
ASTA M 12 x 160	007832	007847	008202	12	M12	10	10	10
ASTA M 12 x 180	007869	007844	-	12	M12	10	10	-
ASTA M 12 x 190	-	007870	-	12	M12	-	10	-
ASTA M 12 x 220	007821	007871	-	12	M12	10	10	-
ASTA M 12 x 250	007822	007873	-	12	M12	10	10	-
ASTA M 12 x 300	007823	007874	-	12	M12	10	10	-
ASTA M 14 x 170	007833	007848	-	14	M14	10	10	-
ASTA M 16 x 165	007824	007839	-	16	M16	10	10	-
ASTA M 16 x 190	007834	007849	008204	16	M16	10	10	10
ASTA M 16 x 215	-	007989	-	16	M16	-	10	-
ASTA M 16 x 250	007825	007990	-	16	M16	10	10	-
ASTA M 16 x 300	007826	007991	-	16	M16	10	10	-
ASTA M 20 x 220	007827	-	-	20	M20	10	-	-
ASTA M 20 x 260	007835	007850	008205	20	M20	10	10	5
ASTA M 20 x 300	007828	-	-	20	M20	10	-	-
ASTA M 20 x 350	007992	007993	-	20	M20	10	10	-
ASTA M 22 x 280	007836	-	-	22	M22	5	-	-
ASTA M 24 x 300	007837	007852	-	24	M24	5	5	-
ASTA M 27 x 340	007855	007857	-	27	M27	5	5	-
ASTA M 30 x 380	007856	007858	-	30	M30	5	5	-

Name	Art.-No. (zp)	Art.-No. (R)	Thread size (mm)	Thread	Min. effect. anchorage depth	Sales unit (zp)	Sales unit (R)
UPM-A 8 x 130	-	512491	8	M8	60	-	10
UPM-A M 6 x 75	509171	-	6	M6	50	20	-
UPM-A M 8 x 110	509176	509185	8	M8	60	20	20
UPM-A M 8 x 130	509177	-	8	M8	60	20	-
UPM-A M 10 x 110	509178	509186	10	M10	60	20	20
UPM-A M 10 x 130	509179	568876	10	M10	60	20	20
UPM-A M 10 x 170	509180	509187	10	M10	60	20	20
UPM-A M 12 x 120	509181	566678	12	M12	70	20	20
UPM-A M 12 x 140	509182	509188	12	M12	70	20	20
UPM-A M 16 x 130	512490	512492	16	M16	80	10	10
UPM-A M 16 x 175	509183	509189	16	M16	80	10	10
UPM-A M 16 x 200	509184	-	16	M16	80	10	-

Stainless steel (R/A4): For fastenings outdoors or in damp rooms
Zink plated steel (zp): For fastenings in dry indoor areas
Hot-dip galvanized steel (hdg): For fastenings in dry indoor areas and increased resistance
Cartridge/capsule system (ASTA): For use with cartridge and capsule systems
Cartridge system (UPM-A): For use with cartridge systems

Internal threaded anchor UPM-I/IST

Proven internal threaded anchors for chemical fixings.

Description

The Upat internal thread anchors UPM-I/IST are system components in chemical fixings that offer the highest flexibility in anchoring through screws with metric threads or threaded rods due to the possible flush disassembly. Internal thread anchors are suitable for fixings in various building materials with all injection mortar and cartridge systems. The most economical use of bonded anchors is the combination of the internal thread anchor IST and the glass capsule UKA3 Plus. When many fixing points are processed successively, the combination of internal thread anchor UPM-I and injection mortar cartridges is recommended.

Characteristics

- **System component:** Injection mortar UPM 55/UPM 44/UPM 33/UPM 11, Bonded anchor UKA3 Plus
- **Suitable for:** Concrete, masonry
- **Variant:** Cartridge/capsule (IST), cartridge system (UPM-I)
- **Material:** Zinc plated steel (zp), stainless steel (R)
- **Feature:** Thread M5-M20

Advantages

- Maximum flexibility thanks to easy removal – fastening point can be reused
- Minimal costs and complexity thanks to the option of using standard screws and threaded rods
- Approved for concrete and masonry, depending on the system

Applications

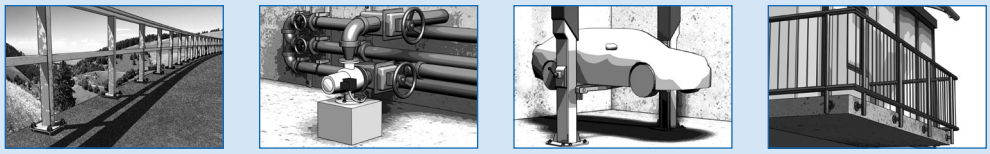
- Pipe and ventilation ducts
- Sprinkler systems
- Cable trays and ladders
- Grids
- Steel constructions
- Machines
- Consoles
- Formwork props

Materials

- The internal threaded anchors are approved or suitable for various building materials when used with different Upat injection mortars and bonded anchor cartridges. The details (materials, loads, etc.) of the available approval apply.

EDELSTAHL® Rost frei
INOX STAINLESS STEEL

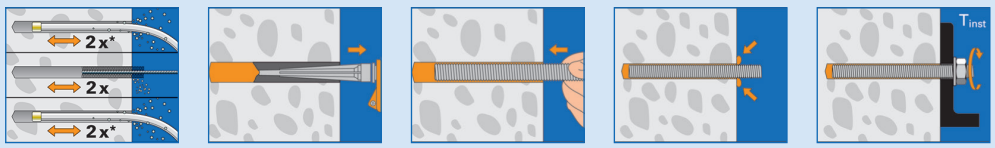
Application examples



Straight to the product

upat.com/en-ist

Assembly



Internal threaded anchor UPM-I/IST

Product variants

Name	Art-No.	Drill diameter	Thread size (mm)	Thread	Min. drill hole depth	Min. bolt penetration	Min. effect. anchorage depth	Sales unit
UPM-I M 6	043663	14	6	M6	90	6	85	10
UPM-I M 8	043664	14	8	M8	90	8	85	10
UPM-I M 10	043665	18	10	M10	90	10	85	10
UPM-I M 12	043666	18	12	M12	90	12	85	10

Name	Art.-No. (zp)	Art.-No. (R)	Drill diameter	Thread size (mm)	Thread	Min. drill hole depth	Sales unit (zp)	Sales unit (R)
IST M5	513714	-	10	5	M5	75	10	-
IST M6	513717	-	12	6	M6	75	10	-
IST M8	513718	513724	14	8	M8	90	10	10
IST M10	513719	513725	18	10	M10	90	10	10
IST M12	513721	513726	20	12	M12	125	10	10
IST M16	513722	513727	24	16	M16	160	5	5
IST M20	513723	-	32	20	M20	200	5	-

Stainless steel (R): For fastening outdoors or in damp rooms
Zink plated steel (zp): For fastening in dry indoor areas
Cartridge/capsule system (IST): For use with cartridge and capsule systems
Cartridge system (UPM-I): For use with cartridge systems

High performance bonded anchor UHB

For maximum holding power with minimal installation effort: the strongest bonded anchor. Approved for concrete and fire protection.

Description

The Upat high-performance bonded anchor UPM 66, used in conjunction with the composite anchors UHB Inject-A, represents the highest standards and an ideal installation. This bonded anchor, with its wide range of approvals, allows for minimal spacings and edge distances, reducing installation time. It is particularly suitable for securing the highest loads in both cracked and uncracked concrete, such as railings, masts, and steel structures.

Characteristics

- **System component:** Injection mortar UPM 66 (Item number 546973)
- **Suitable for:** Concrete
- **Variant:** Long anchorage depth (L), Short anchorage depth (S)
- **Material:** Zinc plated steel (zp), Stainless steel (R)
- **Feature:** Thread M8-M24, Usable length 10-165mm

Applications

- Bridge railings
- Pumps
- Lifts
- Balcony railings
- Stair railings
- Steel beams
- High racks
- Silos

Advantages

- **Wide range of approvals:** ETA concrete approval option 1 and fire protection test
- **Coordinated system:** Optimally coordinated system with high performance thanks to the combination of UPM 66 injection mortar and UHB composite anchors
- **Optimal load transfer:** The bond between the injection mortar and the cone anchor geometry enables optimal load transfer
- **Wide range of applications:** Also suitable for bridge railings in accordance with guideline drawing GEL 14

Materials

Approved for:

- Concrete C20/25 to C50/60, cracked and uncracked

Also suitable for:

- Concrete C12/15

Fire resistance classification **R 120**
Anchor types see test report

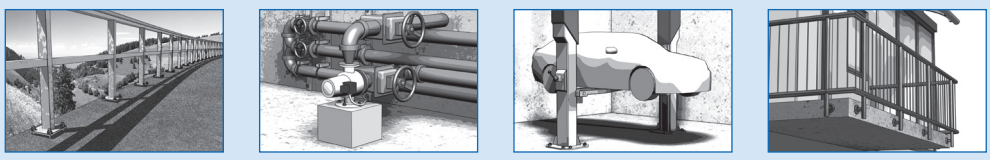
ETA-18/0864
ETAG 001-5
Option 1 for cracked concrete

EDELSTAHL Rost frei
INOX STAINLESS STEEL

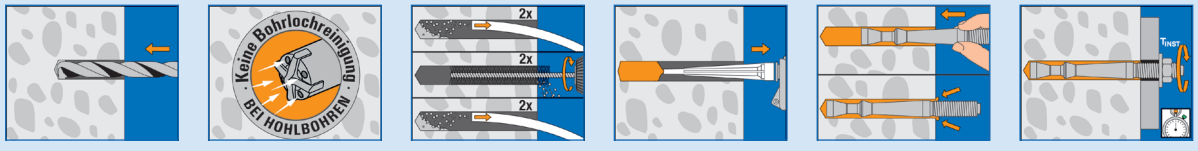
Straight to the product

upat.com/en-uhb

Application examples



Assembly



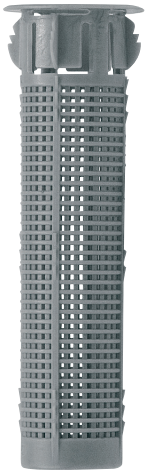
High performance bonded anchor UHB

Product variants

Name	Art.-No. (zp)	Art.-No. (A4)	Drill diameter	Drill hole depth	Thread size (mm)	Thread	Length	Max. fixture thickness	Width across nut	Scale parts mortar	Anchorage depth	Sales unit (zp)	Sales unit (A4)
UHB-INJECT-A L M8 X 60/10	546909	546940	10	66	8	8	88	10	13	3	60	10	10
UHB-INJECT-A L M8 X 60/30	546910	546941	10	66	8	8	108	30	13	3	60	10	10
UHB-INJECT-A L M8 X 60/50	546911	546942	10	66	8	8	128	50	13	3	60	10	10
UHB-INJECT-A L M12 X 100/10	546916	-	14	106	12	M12	133	10	19	6	100	10	-
UHB-INJECT-A L M12 X 120/60	546907	-	14	126	12	M12	203	60	19	7	120	10	-
UHB-INJECT-A L M16 X 145/30	546923	546954	18	151	16	M16	200	30	24	11	145	10	10
UHB-INJECT-A L M16 X 160/30	546912	546944	18	166	16	M16	215	30	24	13	160	10	10
UHB-INJECT-A L M16 X 160/60	546913	546945	18	166	16	M16	245	60	24	13	160	10	10
UHB-INJECT-A L M20 X 210/50	546915	546947	25	216	20	M20	289	50	30	33	210	4	4
UHB-INJECT-A L M24 X 210/50	546926	546957	25	216	24	M24	293	50	36	33	210	4	4
UHB-INJECT-A L M12 X 100/100	546919	546950	14	106	12	M12	223	100	19	6	100	10	10
UHB-INJECT-A L M12 X 120/100	546908	-	14	126	12	M12	243	100	19	7	120	10	-
UHB-INJECT-A L M16 X 145/100	546925	546956	18	151	16	M16	270	100	24	11	145	10	10
UHB-INJECT-A L M16 X 160/100	546914	546946	18	166	16	M16	285	100	24	13	160	10	10
UHB-INJECT-A L M20 X 210/150	546904	-	25	216	20	M20	389	150	30	33	210	8	-
UHB-INJECT-A L M12x100/25	546917	546948	14	106	12	M12	148	25	19	6	100	10	10
UHB-INJECT-A L M12x100/60	546918	546949	14	106	12	M12	183	60	19	6	100	10	10
UHB-INJECT-A L M12x120/25	546906	546943	14	126	12	M12	168	25	19	7	120	10	10
UHB-INJECT-A L M16x125/30	546920	546951	18	131	16	M16	180	30	24	9	125	10	10
UHB-INJECT-A L M16x125/60	546921	546952	18	131	16	M16	210	60	24	9	125	10	10
UHB-INJECT-A L M16x145/60	546924	546955	18	151	16	M16	230	60	24	11	145	10	10
UHB-INJECT-A L M16x125/100	546922	546953	18	131	16	M16	250	100	24	9	125	10	10
UHB-INJECT-A S M10 X 60/10	546927	546959	10	66	10	M10	90	10	17	3	60	10	10
UHB-INJECT-A S M10 X 60/20	546928	546960	10	66	10	M10	100	20	17	3	60	10	10
UHB-INJECT-A S M10 X 60/60	546929	546961	10	66	10	M10	140	60	17	3	60	10	10
UHB-INJECT-A S M12 X 75/165	546935	-	12	81	12	M12	263	165	19	4	75	10	-
UHB-INJECT-A S M10x75/20	546938	546970	10	81	10	M10	115	20	17	4	75	10	10
UHB-INJECT-A S M12x75/10	546931	546963	12	81	12	M12	108	10	19	4	75	10	10
UHB-INJECT-A S M12x75/25	546932	546964	12	81	12	M12	123	25	19	4	75	10	10
UHB-INJECT-A S M12x75/60	546933	546966	12	81	12	M12	158	60	19	4	75	10	10
UHB-INJECT-A S M16x95/30	546936	546967	16	101	16	M16	151	30	24	8	95	10	10
UHB-INJECT-A S M10x60/100	546930	546962	10	66	10	M10	180	100	17	3	60	10	10
UHB-INJECT-A S M12x75/100	546934	-	12	81	12	M12	198	100	19	4	75	10	-
UHB-INJECT-A S M20x170/50	546939	546972	25	176	20	M20	249	50	30	26	170	4	4
UHB-INJECT-A S M24x170/50	546937	546969	25	176	24	M24	249	50	36	26	170	4	4
UHB-INJECT-A S M10x75/40	-	546971	10	81	10	M10	135	40	17	4	75	-	10
UHB-INJECT-A S M16x95/60	-	546968	16	101	16	M16	181	60	24	8	95	-	10
UHB-INJECT-A S M10X60/30	-	546958	10	66	10	M10	110	30	17	3	60	-	10
UHB-INJECT-A S M12X75/40	-	546965	12	81	12	M12	135	40	19	4	75	-	10

Stainless steel (R): For fastenings outdoors or in damp rooms
Zink plated steel (zp): For fastenings in dry indoor areas
Long anchoring depth (L): For maximum tensile load
Short anchoring depth (S): For minimal installation effort

Perforated sleeve UPM-SH



Cost-saving perforated sleeve for fixings in perforated brick.

Description

The Upat perforated sleeve UPM-SH is an innovative component designed for the optimal use of Upat injection mortars in conjunction with anchor rods UPMA-A/ASTA or internal thread anchors UPM-I/IST in perforated masonry. The perforated sleeve is inserted into the drilled hole and filled with injection mortar from the base of the perforated sleeve. When setting the anchor rod or internal thread anchor, the mortar is pushed through the lattice structure and securely connects with the perforated masonry. This allows the load to be transferred into the building material. The perforated sleeve UPM-SH can also bridge non-load-bearing layers.

Characteristics

- **System component:** Injection mortar UPM 44/UPM 33/UPM 11
- **Suitable for:** Masonry
- **Material:** Plastic
- **Feature:** Compatible with UPM-A/ASTA M6-M16/UPM-I M6-M12, Drill diameter 12-20mm, Anchorage depth 50-200mm

Applications

- Steel structures
- Wooden structures
- Railings
- Facades
- Stairs
- Steel brackets
- Machines
- Masts
- Awnings
- Canopies

Advantages

- **Minimal Mortar Consumption:** The optimized hole pattern structure of the sieve sleeve ensures the lowest possible mortar consumption, resulting in significant cost savings
- **Simple and Cost-Effective:** One sieve sleeve suitable for multiple anchor rod diameters. Innovative centering wings secure the anchor rods
- Special Barbs Prevent Falling Out During Overhead Installation
- Optimized Interlocking in Hollow Blocks through the Use of the Sieve Sleeve
- ETA Approval - Approved System

Materials

- Hollow block made of lightweight concrete
- Sand-lime perforated brick
- Sand-lime solid brick
- Pumice hollow core planks
- Hollow core slabs and other perforated stones
- Pumice concrete and other solid building materials
- Perforated clay brick
- Hollow block made of concrete
- Solid brick

Straight to the product

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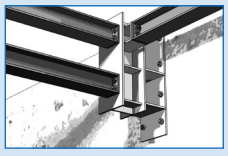
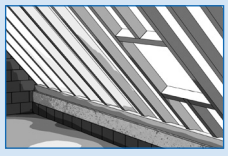
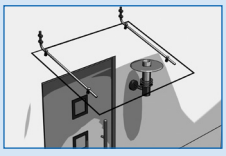
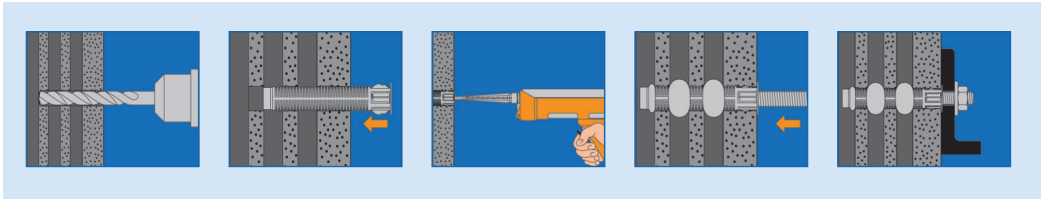
Application examples


Perforated sleeve UPM-SH

Assembly



Product variants

Name	Art-No.	Drill diameter	Fill quantity	Min. drill hole depth	Min. effect. anchorage depth	Match	Sales unit
UPM-SH 12 x 50 K	041912	12	5	60	50	UPM-A / ASTA M6-M8	50
UPM-SH 12 x 85 K	041913	12	10	95	85	UPM-A / ASTA M6-M8	50
UPM-SH 16 x 85 K	041914	16	12	95	85	UPM-A / ASTA M8-M10, UPM-I M6-M8	50
UPM-A 16 x 130 K	041915	16	15	140	130	UPM-A / ASTA M8-M10, UPM-I M6-M8	20
UPM-SH 20 x 85 K	041916	20	15	95	85	UPM-A / ASTA M12-M16, UPM-I M10-M12	20
UPM-SH 20 x 130 K	512493	20	-	140	130	UPM-A / ASTA M12-M16, UPM-I M10-M12	20
UPM-SH 20 x 200 K	512494	20	-	210	200	UPM-A / ASTA M12-M16, UPM-I M10-M12	20

Accessories Chemical Fixings

Suitable accessories for every application.

Description

Whether it's dispenser, hole cleaning equipment, or static mixers, Upat accessories enable efficient installation of fasteners.

Advantages

- **Manual metal dispenser gun UPM AM:** The robust solution for dispensing Upat injection cartridges up to 390ml
- **Professional manual dispenser gun UPM DM P:** The professional solution for efficient dispensing of Upat injection cartridges up to 390ml
- **Blow-out pump UPM AB:** The approval-compliant blow-out pump for borehole cleaning
- **Cleaning brush UP BS:** The approval-compliant steel brush for borehole cleaning
- **Static mMixer UPM MR:** The safe solution for homogeneously mixing the two mortar components of all Upat injection cartridges

Straight to the product

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Product variants

Name	Art-No.	Content
UPM DM P	570073	1 x professional dispenser tool
UPM AM	512604	1 x metal dispenser gun
UMP MR	521	10 x static mixers
UPM AB	1177	1x blow-out pump
SK SW 8 1/2"	1536	1 x adapter SK SW 8 1/2" VK
SDS plus 1/2"	1537	1 x adapter SDS PLUS 1/2" VK
SDS max 1/2"	1538	1 x adapter SDS MAX 1/2" VK
SDS max 3/4"	1539	1 x adapter SDS MAX 3/4" VK
MW-SDS plus	4060	1 x setting tool MW-SDS plus
UP B Set ø14/20	551764	Set: 1 x cleaning brush ø14 , 1 x cleaning brush ø20
UP B Set ø20/30	551763	Set: 1 x cleaning brush ø20, 1 x cleaning brush ø30
UP BS ø8	551765	1 x cleaning brush ø8
UP BS ø10	551766	1 x cleaning brush ø10
UP BS ø12	551767	1 x cleaning brush ø12
UP BS ø14	551768	1 x cleaning brush ø14
UP BS ø16/18	551769	1 x cleaning brush ø16/18
UP BS ø20/22	52277	1 x cleaning brush ø20/22
UP BS ø24	551770	1 x cleaning brush ø24
UP BS ø28	78183	1 x cleaning brush ø28
UP BS ø35	78184	1 x cleaning brush ø35

Frame fixings

Frame fixing URD ..... Page 66

Frame fixing URDL ..... Page 69

Metal frame anchor UFD ..... Page 72

Frame fixing URD

Short all-rounder for versatile use. Approved for concrete, masonry, and fire protection.

Description

The short all-rounder for versatile use. Suitable for concrete, solid and perforated building materials. For medium and high loads. Approved for concrete, masonry and fire protection. Available product variants: countersunk head (T) and hexagon head (FUS). Available in stainless steel (R/A4) and zink plated steel (zp) grades. Selectable product features: drill diameter 8/10 and effective length 10-210 mm. Used in through-hole mounting. Features secure anchoring, Upat nylon quality and easy installation.

Characteristics

- **Certification/Approval:** ETA redundant in cracked concrete, ETA redundant in masonry, fire resistance
- **Building materials:** Concrete, solid construction, hollow construction
- **Load Range in Concrete:** Tension Load 0.99-1.79kN, Shear Load 3.93-5.98kN
- **Load Range in Masonry:** Tension Load, shear Load, and oblique Load 0.11-1.43kN
- **Material:** Zin plated steel (zp), stainless steel (R/A4)
- **Variant:** Countersunk head (T), hexagon head (FUS)
- **Feature:** Drill Diameter 8/10mm, Usable Length 10-210mm

Applications

- Facade construction
- Wooden substructures
- Screen brackets
- Cable channels
- Beam anchorage
- Windows
- Lighting strips
- Mirror cabinet
- Door frames
- Ceiling suspension

Advantages

- **Secure anchoring:** ETA approval option 1 cracked concrete and masonry for redundant non-structural systemsand, fire protection test
- **Upat nylon quality:** Robust - durable - recyclable
- **Easy installation:** Short expansion part with 50mm anchorage depth for quick and ergonomic installation
- **Safe application:** The rotation lock prevents the nylon anchor from rotating in the borehole

Materials

Approved for:

- Concrete ≥ C12/15
- Perforated bricks & full brick
- Lightweight concrete hollow blocks
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Aerated concrete
- Full blocks made of lightweight and normal concrete
- Thermal insulation blocks

Also suitable for:

- Natural stone with dense structure
- Full gypsum boards

Fire resistance classification R 90 for facade systems in concrete

EDELSTAHL Rost frei INOX STAINLESS STEEL

ETA-15/0553 ETAG 020 a, b, c Multiple use in concrete and masonry for non-structural applications

ETA-17/0811 ETAG 020 a, b, c, d Multiple use in concrete and masonry for non-structural applications

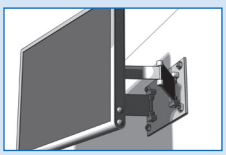
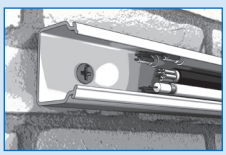
Upat NYLON Qualität

Straight to the product

upat.com/en-urd

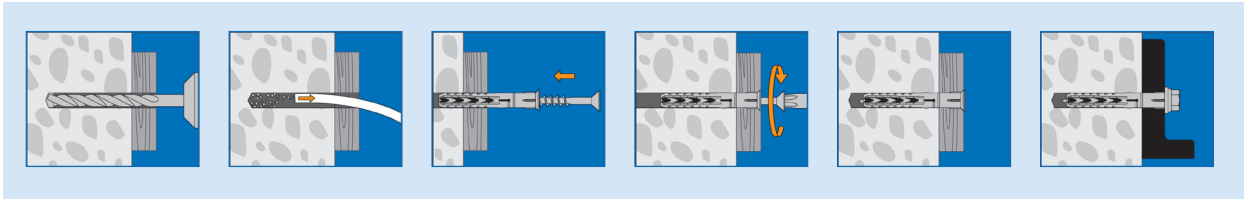
Application examples



Frame fixing URD

Assembly



Product variants

Name	Art.-No. (zp)	Art.-No. (A4)	Drive	Drill diameter	Anchor length	Max. fixture thickness	Min. drill hole depth	ETA approval	Sales unit (zp)	Sales unit (A4)
URD 10 x 52 FUS	543354	-	TX40 / SW 13	10	52	2	-	Yes	50	-
URD 10 x 60 FUS	543355	543365	TX40 / SW 13	10	60	10	-	Yes	50	50
URD 10 x 80 FUS	543356	543366	TX40 / SW 13	10	80	30	-	Yes	50	50
URD 10 x 100 FUS	543357	543367	TX40 / SW 13	10	100	50	-	Yes	50	50
URD 10 x 120 FUS	543358	543368	TX40 / SW 13	10	120	70	-	Yes	50	50
URD 10 x 140 FUS	543359	543369	TX40 / SW 13	10	140	90	-	Yes	50	50
URD 10 x 160 FUS	543360	543370	TX40 / SW 13	10	160	110	-	Yes	50	50
URD 10 x 180 FUS	543361	543371	TX40 / SW 13	10	180	130	-	Yes	50	50
URD 10 x 200 FUS	543362	543372	TX40 / SW 13	10	200	150	-	Yes	50	50
URD 10 x 230 FUS	543363	543373	TX40 / SW 13	10	230	180	-	Yes	50	50
URD 10 x 260 FUS	543364	543374	TX40 / SW 13	10	260	210	-	Yes	50	50
URD 8 x 80 T	543375	-	TX30	8	80	30	90	Yes	50	-
URD 8 x 100 T	543376	-	TX30	8	100	50	110	Yes	50	-
URD 8 x 120 T	543377	-	TX30	8	120	70	130	Yes	50	-
URD 10 x 80 T	543336	543345	TX40	10	80	30	-	Yes	50	50
URD 10 x 100 T	543337	543346	TX40	10	100	50	-	Yes	50	50
URD 10 x 120 T	543338	543347	TX40	10	120	70	-	Yes	50	50
URD 10 x 140 T	543339	543348	TX40	10	140	90	-	Yes	50	50
URD 10 x 160 T	543340	543349	TX40	10	160	110	-	Yes	50	50
URD 10 x 180 T	543341	543350	TX40	10	180	130	-	Yes	50	50
URD 10 x 200 T	543342	543351	TX40	10	200	150	-	Yes	50	50
URD 10 x 230 T	543343	543352	TX40	10	230	180	-	Yes	50	50
URD 10 x 260 T	543344	543353	TX40	10	260	210	-	Yes	50	50
URD 8x60 T	547092	-	TX30	8	60	10	70	Yes	50	-

Stainless steel (R/A4): For external atmospheric exposure and to permanently damp internal conditions, if no particular aggressive conditions exists
Zinc plated steel (zp): For dry internal conditions. Furthermore can be used outdoors if the head is shielded from moisture and rain to prevent water from entering the anchor shaft
Countersunk Head (T): For visually appealing and flush installation
Hexagon Head (FUS): For secure application of torque from the outside even in small installation spaces

Frame fixing URD

Load table

Permissible loads[1] [2] of a single anchor as part of a multiple fixing of non-structural systems
For the design, the entire assessment ETA-17/0811 must be considered.

Type			URD 8	URD 10
Anchor diameter	d_0	[mm]	8	10
Anchoring depth	h_{ef}	[mm]	50	50
Anchoring in concrete ≥ C12/15				
Permissible tensile load N_{perm}		[kN]	0.99	1.79
Permissible shear load V_{perm}	zp	[kN]	4.23	5.98
Permissible shear load V_{perm}	R	[kN]	3.93	5.98
Minimum member thickness	h_{min}	[mm]	100	100
Characteristic edge distance	$c_{cr,N}$	[mm]	85	140
Characteristic spacing distance	a resp. $s_{cr,N}$	[mm]	100	100
Minimum spacing distance	s_{min}	[mm]	100	70
At an edge distance	c ≥	[mm]	85	210
Minimum edge distance	c_{min}	[mm]	85	85
At a spacing distance	s ≥	[mm]	100	100
Anchoring in masonry				
Permissible load in solid brick	Mz	[kN]	0.86	1.43
Permissible load F_{perm}[3] in solid sand-lime brick	KS	[kN]	0.86	1.43
Permissible load F_{perm}[3] in lightweight concrete solid brick	Vbl	[kN]	0.71	0.86
Permissible load F_{perm}[3] in normal concrete solid brick	Vbn	[kN]	0.71	1.29
Permissible load F_{perm}[3][4] in perforated brick	HLz	[kN]	0.34	0.86
Permissible load F_{perm}[3] in perforated sand-lime brick	KSL	[kN]	0.11	0.43
Permissible load F_{perm}[3][4] in hollow lightweight concrete block	Hbl	[kN]	0.71	0.71
Permissible load F_{perm}[3] in hollow block lightweight concrete Hbn	Hbn	[kN]		0.71
Permissible load F_{perm}[3] in thermal insulation block WDB	WDB	[kN]		0.43
Minimum member thickness	h_{min}	[mm]	100	100
Minimum spacing distance (single anchor)	a_{min}	[mm]	250	250
Minimum edge distance (single anchor)	c_{min}	[mm]	100	100
Minimum spacing distance (anchor group)	s_{min}	[mm]	100	100
Minimum edge distance (anchor group)	c_{min}	[mm]	100	100
Anchoring in aerated concrete				
Permissible load F_{perm}[3] in aerated concrete	PB ≥ 2 N/mm2	[kN]		0.26
Minimum component thickness	h_{min}	[mm]		100
Minimum spacing distance (single anchor)	a_{min}	[mm]		250
Minimum edge distance (single anchor)	c_{min}	[mm]		100
Minimum spacing distance (anchor group)	s_{min}	[mm]		400
Minimum edge distance (anchor group)	c_{min}	[mm]		100

[1] The partial safety factors of resistance regulated in the assessment, as well as a partial safety factor for action of γL = 1.4, are taken into account. For example, a single anchor is defined as an anchor with a minimum spacing distance "a" according to the ETA.

[2] Valid for temperatures in the anchoring base up to +50 °C (or temporarily up to +80 °C). For long-term temperatures up to +30 °C, higher permissible loads are possible.

[3] Valid for tensile load, shear load, and oblique pull at any angle. For combinations of tensile and shear loads as well as bending moments, see the assessment.

[4] Drilling method: rotary drilling.

Frame fixing URDL

Universal frame fixing for secure hold even in unstable building materials. Approved for concrete, masonry, and fire protection.

Description

The universal long-shaft dowel for secure fastening even in unstable building materials. Suitable for concrete, solid and perforated building materials. For medium and high loads. Approved for concrete, masonry and fire protection. Available product variants: countersunk head (T) and hexagon head (FUS). Available in stainless steel (R/A4) and zink plated steel (zp). Selectable product features: drill diameter 8/10 and effective length 10-160 mm. Set in through-hole mounting. Features secure anchoring, Upat nylon quality and universal use.

Characteristics

- **Certification/Approval:** ETA redundant in cracked concrete, ETA redundant in masonry, fire resistance
- **Building materials:** Concrete, solid construction, hollow construction
- **Load range in concrete:** Tension load 1.39-1.79kN, shear load 3.2-6.17kN
- **Load range in masonry:** Tension load, shear load, and oblique load 0.09-1.71kN
- **Material:** Zin plated steel (zp), stainless steel (R/A4)
- **Variant:** Countersunk head (T), hexagon head (FUS)
- **Feature:** Drill diameter 8/10, usable length 10-160mm

Applications

- Facade construction
- Wooden substructures
- Screen brackets
- Cable channels
- Beam anchorage
- Windows
- Lighting strips
- Mirror cabinet
- Door frames
- Ceiling suspension

Advantages

- **Secure anchoring:** ETA approval option 1 cracked concrete and masonry for redundant non-structural systemsand, fire protection test
- **Upat nylon quality:** Robust - durable - recyclable
- **Universal application:** When the building material is unknown, the frame anchor URDL is a good choice due to its expansion and knotting function
- **Firm hold:** The anchorage depth of 70mm ensures a firm hold even in unstable building materials, making the URDL versatile

Materials

Approved for:

- Perforated bricks
- Aerated concrete
- Lightweight concrete hollow blocks
- Calcium silicate perforated bricks
- Thermal insulation blocks
- Full blocks made of lightweight and normal concrete
- Full bricks
- Calcium silicate solid bricks
- Concrete ≥ C12/15

Also suitable for:

- Natural stone with dense structure
- Full gypsum boards

Fire resistance classification R 90 for facade systems in concrete

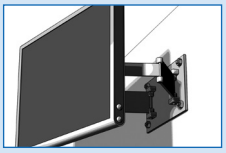
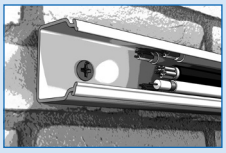
ETA-18/0548
ETAG 020 a, b, c, d
For use in systems, such as façade systems, for fixing or supporting elements which contribute to the stability of the system

EDELSTAHL Rostfrei INOX STAINLESS STEEL

Upat NYLON Qualität

Application examples



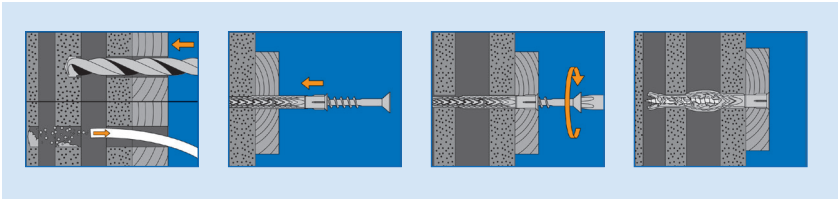



Straight to the product

upat.com/en-urdl

Frame fixing URDL

Assembly



Product variants

Name	Art.-No. (zp)	Art.-No. (A4)	Drive	Drill diameter	Anchor length	Max. fixture thickness	Min. drill hole depth for through fixings	ETA approval	Sales unit (zp)	Sales unit (A4)
URDL 8x80 FUS	546767	546771	TX30 / SW 10	8	80	10	90	Yes	100	100
URDL 8x100 FUS	546768	546772	TX30 / SW 10	8	100	30	100	Yes	50	50
URDL 8x120 FUS	546769	546773	TX30 / SW 10	8	120	50	120	Yes	50	50
URDL 8x140 FUS	546770	546774	TX30 / SW 10	8	140	70	150	Yes	50	50
URDL 10x80 FUS	546789	546796	TX40 / SW 13	10	80	10	90	Yes	50	50
URDL 10x100 FUS	546790	546797	TX40 / SW 13	10	100	30	110	Yes	50	50
URDL 10x120 FUS	546791	546798	TX40 / SW 13	10	120	50	130	Yes	50	50
URDL 10x140 FUS	546792	546799	TX40 / SW 13	10	140	70	150	Yes	25	25
URDL 10x160 FUS	546793	546800	TX40 / SW 13	10	160	90	170	Yes	25	25
URDL 10x200 FUS	546794	546801	TX40 / SW 13	10	200	130	210	Yes	25	25
URDL 10x230 FUS	546795	546802	TX40 / SW 13	10	230	160	240	Yes	25	25
URDL 8x80 T	546759	546763	TX30	8	80	10	90	Yes	100	100
URDL 8x100 T	546760	546764	TX30	8	100	30	100	Yes	50	50
URDL 8x120 T	546761	546765	TX30	8	120	50	120	Yes	50	50
URDL 8x140 T	546762	546766	TX30	8	140	70	150	Yes	50	50
URDL 10x80 T	546775	546782	TX40	10	80	10	90	Yes	50	50
URDL 10x100 T	546776	546783	TX40	10	100	30	110	Yes	50	50
URDL 10x120 T	546777	546784	TX40	10	120	50	130	Yes	50	50
URDL 10x140 T	546778	546785	TX40	10	140	70	150	Yes	50	50
URDL 10x160 T	546779	546786	TX40	10	160	90	170	Yes	50	50
URDL 10x200 T	546780	546787	TX40	10	200	130	210	Yes	25	25
URDL 10x230 T	546781	546788	TX40	10	230	160	240	Yes	25	25

Stainless steel (R/A4): For external atmospheric exposure and to permanently damp internal conditions, if no particular aggressive conditions exists
Zinc plated steel (zp): For dry internal conditions. Furthermore can be used outdoors if the head is shielded from moisture and rain to prevent water from entering the anchor shaft
Countersunk head (T): For visually appealing and flush installation
Hexagon head (FUS): For secure application of torque from the outside even in small installation spaces

Frame fixing URDL

Load table

Permissible loads[1] [2] of a single anchor as part of a multiple fixing of non-structural systems
For the design, the entire assessment ETA-17/0811 must be considered.

Type			URDL 8	URDL10
Anchor diameter	d_0	[mm]	8	10
Anchoring depth	h_{ef}	[mm]	70	70
Anchoring in concrete ≥ C16/20				
Permissible tensile load N_{perm}		[kN]	1.39	1.79
Permissible shear load V_{perm}	zp	[kN]	3.2	4.4
Permissible shear load V_{perm}	R	[kN]	4.51	6.17
Minimum member thickness	h_{min}	[mm]	140	140
Characteristic edge distance	$c_{cr,N}$	[mm]	105	105
Characteristic spacing distance	a bzw. $s_{cr,N}$	[mm]	75	90
Minimum spacing distance	s_{min}	[mm]	90	100
Minimum edge distance	c_{min}	[mm]	90	100
Anchoring in masonry				
Permissible load in solid brick	Mz	[kN]	0,86 - 1,14	0,57 - 1,43
Permissible load F_{perm}[3] in solid sand-lime brick	KS	[kN]	1.57	1.71
Permissible load F_{perm}[3][4] in perforated brick	HLz	[kN]	0,09 - 0,26	0.09
Permissible load F_{perm}[3] in perforated sand-lime brick	KSL	[kN]	1.43	1.57
Minimum member thickness	h_{min}	[mm]	110 - 370	110 - 370
Minimum edge distance (single anchor)	c_{min}	[mm]	120 - 185	120 - 185
Minimum spacing distance (anchor group) vertical to the edge	$s1_{min}$	[mm]	240 - 370	240 - 370
Minimum spacing distance (anchor group) parallel to the edge	$s2_{min}$	[mm]	480 - 740	480 - 740
Minimum edge distance (anchor group)	c_{min}	[mm]	75 - 125	75 - 125
Anchoring in aerated concrete				
Permissible load F_{perm}[3] in aerated concrete	ACC	[kN]	0.14	0.17
Minimum member thickness	h_{min}	[mm]	240	240
Minimum edge distance (single anchor)	c_{min}	[mm]	120	120
Minimum spacing distance (anchor group) vertical to the edge	$s1_{min}$	[mm]	240	240
Minimum spacing distance (anchor group) parallel to the edge	$s2_{min}$	[mm]	480	480
Minimum edge distance (anchor group)	c_{min}	[mm]	120	120

[1] The partial safety factors for resistance regulated in the assessment, as well as a partial safety factor for action of $\gamma L = 1.4$, are taken into account.

[2] Valid for temperatures in the anchoring base up to +50 °C (or temporarily up to +80 °C). For long-term temperatures up to +30 °C, higher permissible loads are possible.

[3] Valid for tensile, shear, and oblique pull at any angle. For combinations of tensile and shear loads as well as bending moments, see the assessment.

[4] Refers to the stones of the respective category regulated in the approval, the highest permissible load, and the installation instructions, which must be evaluated depending on the stone properties.

Metal frame anchor UFD

Solid metal frame anchor for tension-free spaced installation. Suitable for solid and perforated construction materials.

Description

The Upat metal frame anchor UFD is the optimal anchor for tension-free standoff installation. The UFD, consisting of a metal sleeve and a countersunk head screw made of zinc plated steel, allows for time-saving through-hole installation in solid and hollow building materials. By tightening the screw, the anchor expands and wedges against the borehole wall. The functional principle enables tension-free installation, allowing for precise positioning and long-lasting attachment of window and door frames.

Characteristics

- **Building materials:** Concrete, solid construction, hollow construction
- **Load range:** Tensile load, shear load, and oblique load 0.5-1.4 kN
- **Material:** Zinc plated steel (zp)
- **Feature:** Drill diameter 10mm, anchor length 112-182 mm

Applications

- Windows
- Wooden substructures
- Door frames
- Garden gates

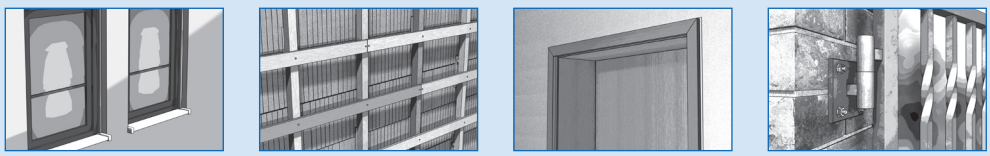
Advantages

- **Stress-free spacing installation:** Clever functional principle enables a stress-free spacing installation
- **Precise positioning:** Stress-free installation allows for precise positioning of door and window frames
- **Flexible application:** Can be flexibly used in solid and hollow building materials
- **Secure grip:** The pressure- and tension-resistant dowel geometry ensures a secure grip in the building material

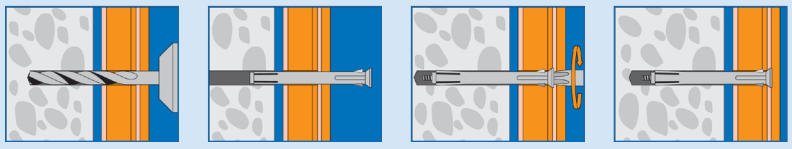
Materials

- Concrete
- Perforated clay bricks
- Hollow block made of lightweight concrete
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Aerated concrete
- Solid block made of lightweight concrete
- Full bricks

Application examples



Assembly



Straight to the product

upat.com/en-ufd

Metal frame anchor UFD

Product variants

Name	Art-No.	Drill diameter	Anchor length	Max. fixture thickness	Min. drill hole depth for through fixings	Sales unit
UFD 10/112	541737	10	112	82	130	100
UFD 10/132	541738	10	132	102	150	100
UFD 10/152	541739	10	152	122	170	100
UFD 10/182	541740	10	182	152	200	50

Load table

Highest recommended loads[1] of a single anchor as part of a multiple fixation of non-load-bearing systems.

Type	Concrete ≥ C20/25 F_{rec}[2] [kN]	Solid Brick ≥ Mz 12 F_{rec}[2] [kN]	Solid Sand-lime Brick ≥ KS 12 F_{rec}[2] [kN]	Solid Light Concrete Brick ≥ V 2 F_{rec}[2] [kN]	Perforated Sand-lime Brick ≥ KSL 12 F_{rec}[2] [kN]
UFD 10	1.4	1.3	1.3	0.5	0.6

[1] Includes the necessary safety factor.

[2] Valid for tensile, shear, and oblique pull under any angle.

Standard fixings

Ultra plug U ..... Page 75

Universal plug UVD II ..... Page 77

Nail plug UN ..... Page 79

Assortment boxes UB ..... Page 81

Ultra plug U

Affordable expansion plug for secure hold.

Description

The Upat Ultra plug U is a pure nylon expansion plug and is excellent for securing light to medium loads in both solid and hollow building materials. When a screw is inserted and tightened, the plug expands within the drilled hole, providing secure anchoring in the building material. This expansion plug is commonly used for securing lamps, pictures, electrical installations and wall cabinets.

Characteristics

- **Building material:** Concrete, solid construction
- **Load range:** Tension load, shear load, and oblique load 0.16-1.62kN
- **Material:** Nylon
- **Feature:** Drill diameter 5-12mm

Applications

- Towel holder
- Mirror cabinet
- Wall shelves
- Screen brackets

Advantages

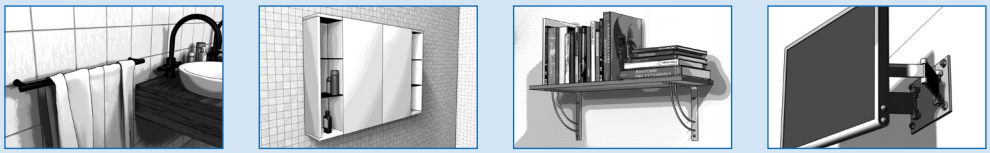
- **Upat nylon quality:** Robust - durable - recyclable
- **Easy handling:** The diameter of the nylon expansion plug matches the diameter of the chipboard screw
- **Edge mounting:** Dual expansion allows for targeted force transmission parallel to the edge of the building material
- **Secure application:** The anti-rotation lock prevents the nylon expansion plug from rotating in the borehole
- **Flexible installation:** Suitable for pre- and through-hole mounting

Materials

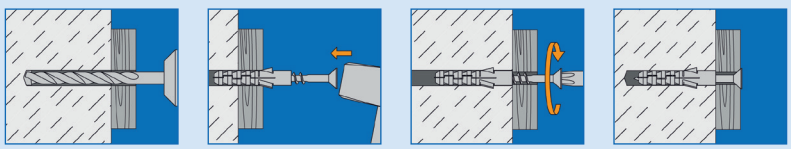
- Sand-lime solid brick
- Dense natural stone
- Concrete
- Solid lightweight concrete block
- Solid brick

Upat NYLON Qualität

Application examples



Assembly



Straight to the product

upat.com/en-u

Ultra plug U

Product variants

Name	Art-No.	Drill diameter	Anchor length	Min. drill hole depth	Wood and chipboard screws	Sales unit
U 5	000789	5	25	35	3.0 - 4.0	100
U 6	000790	6	30	40	4.0 - 5.0	100
U 8	000791	8	40	55	5.0 - 6.0	100
U 10	000792	10	50	65	6.0 - 8.0	50
U 12	000793	12	60	75	8.0 - 10.0	25

Load table

Highest recommended loads[1) 2) 3)] of a single anchor.

Type	Concrete ≥ C20/25 F_{rec}[4)] [kN]	Solid brick ≥ Mz 12 F_{rec}[4)] [kN]	Solid sand-lime brick ≥ KS 12 F_{rec}[4)] [kN]
U 5	0.28	0.24	0.28
U 6	0.55	0.29	0.45
U 8	0.67	0.57	0.67
U 10	1.15	1.15	1.15
U 12	1.62	0.67	1.62

1) Safety factor requirement considered.

2) Load values apply to the largest screw diameter.

3) For anchorages close to the edge, it is recommended to orient the anchor with the expansion direction parallel to the edge of the component.

4) Valid for tension, shear, and oblique loads at any angle.

Universal plug UVD II

Secure universal plug for unknown building materials.

Description

The Upat Universal plug UVD II is a high-quality pure nylon universal plug suitable for securing light to medium loads in almost all building materials. This clever plug provides secure fastening by expanding against the wall in solid materials or by knotting itself in voids and behind panel building materials. The plug can be installed in both pre-positioned and push-through installations. In the version with a rim, the anchor prevents slipping during installation.

Characteristics

- **Building material:** Concrete, solid construction, hollow construction
- **Load range:** Tension load, shear load, and oblique load 0.05-1.2kN
- **Material:** Nylon
- **Variant:** Standard, with edge (R)
- **Feature:** Drill diameter 5-12mm

Materials

- Concrete
- Plasterboard and gypsum fiber boards
- Perforated clay brick
- Hollow block made of lightweight concrete
- Ribbed slabs made of brick and concrete
- Perforated sand-lime brick
- Full sand-lime brick
- Natural stone
- Aerated concrete
- Particle boards
- Full gypsum boards
- Full lightweight concrete block
- Full brick

Advantages

- **Upat nylon quality:** Robust - durable - recyclable
- **Peace of mind:** When dealing with an unknown building material, the nylon universal plug is a good choice due to its expansion and knotting function
- **Secure application:** The anti-rotation lock prevents the nylon universal plug from rotating in the borehole
- **Versatile use:** The nylon universal plug can be used in combination with chipboard screws, wood screws, eye screws, angle screws, or hook screws

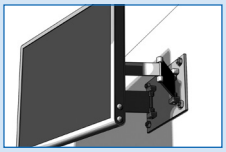
Applications

- Towel holder
- Mirror cabinet
- Wall shelves
- Screen brackets

Upat NYLON Qualität

Application examples



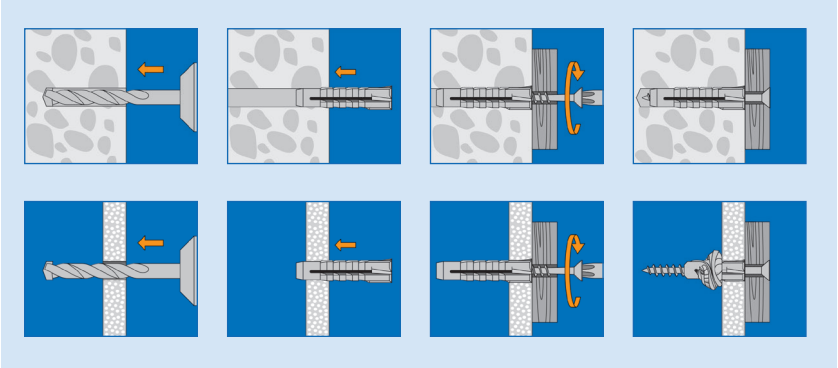



Straight to the product

upat.com/en-uvd

Universal plug UVD II

Assembly



Product variants

Name	Art-No.	Drill diameter	Anchor length	Min. drill hole depth	Wood and chipboard screws	Sales unit
UVD II 5 x 25 R	538436	5	25	35	3.0 - 4.0	100
UVD II 6 x 30 R	538435	6	30	40	4.0 - 5.0	100
UVD II 6 x 50 R	538437	6	50	60	4.0 - 5.0	100
UVD II 8 x 40 R	538439	8	40	50	5.0 - 6.0	100
UVD II 10 x 50 R	538441	10	50	60	6.0 - 8.0	50
UVD II 12 x 60	538442	12	60	70	8.0 - 10.0	25

With rim (R): For flush mounting and to prevent the dowel from slipping into the drill hole

Load table

Highest recommended loads[1) 2)] of a single anchor.

Type	Concrete ≥ C20/25 F_{rec}[3)] [kN]	Solid sand-lime brick ≥ KS 12 F_{rec}[3)] [kN]	Perforated clay brick ≥ Hlz 12 F_{rec}[3)] [kN]	Aerated concrete ≥ AAC 4 (G4) F_{rec}[3)] [kN]	Gypsum Plasterboard 12,5 mm F_{rec}[3)] [kN]
UVD II 5 x 25 R	0.25	0.25	0.1	0.05	0.05
UVD II 6 x 30 R	0.35	0.35	0.15	0.07	0.05
UVD II 6 x 50 R	0.4	0.4	0.15	0.07	0.05
UVD II 8 x 40 R	0.5	0.5	0.2	0.1	0.07
UVD II 10 x 50 R	1	1	0.2	0.15	0.1
UVD II 12 x 60	1.2	1.2	0.25	0.2	0.1

[1)] Safety factor requirement considered.

[2)] Load values apply to the largest screw diameter.

[3)] Valid for tension, shear, and oblique loads at any angle.

Nail plug UN

Impact-resistant hammer-in anchor for quick installation.

Description

The quick-impact dowel for fast installation. Suitable for concrete and solid building materials. For light loads. Available product variants: flat head (F) and countersunk head (S). Selectable product features: drill diameter 5–8 mm, dowel length 30–120 mm and effective length 5–80 mm. Set in through-hole installation. Features Upat nylon quality, quick installation and safe use. Used, for example, for fastening wooden substructures, cable ducts and letterboxes.

Characteristics

- **Building material:** Concrete, solid construction
- **Load range:** Tension load, shear load, and oblique load 0.16-0.27kN
- **Material of anchor:** Nylon
- **Material of nail screw:** Zinc plated steel (zp)
- **Variant:** Countersunk head (S), flat head (F)
- **Feature:** Drill diameter 5-8mm, anchor length 30-120mm, usable length 5-80mm

Advantages

- **Upat nylon quality:** Robust - durable - recyclable
- **Quick installation:** Tapered nail anchor shaft, serrated thread, and pre-assembled nail screw enable efficient processing
- **Secure application:** Impact lock, reinforced rim, and compensating ribs ensure safe use of the nail anchor
- **Easy adjustment:** Cross-slotted drive nail screw for adjusting and dismantling the component
- **Firm grip:** The precisely matched expansion zone provides high expansion and firm grip

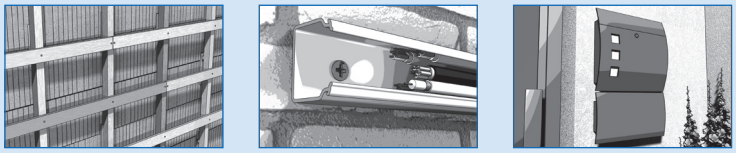
Materials

- Concrete
- Calcium silicate solid bricks
- Clay bricks
- Natural stone
- Lightweight concrete solid bricks
- Aerated concrete
- Full gypsum boards
- Perforated bricks
- Calcium silicate perforated bricks
- Lightweight concrete hollow blocks

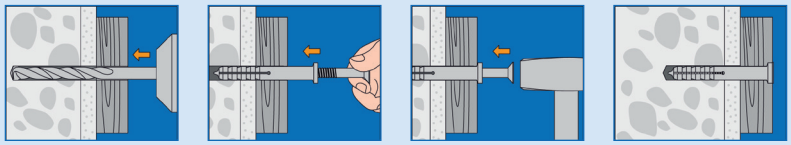
Applications

- Wooden substructures
- Cable channels
- Mailbox
- Wall light

Application examples



Assembly



Straight to the product

upat.com/en-un

Nail plug UN

Product variants

Name	Art-No.	Drill diameter	Anchor length	Max. fixture thickness	Min. drill hole depth	Min. effect. anchorage depth	Sales unit
UN 6 x 40/10 F	518874	6	40	10	75	30	100
UN 6 x 40/10 S	518871	6	40	10	55	30	100
UN 6 x 60/30 F	518875	6	60	30	95	30	100
UN 6 x 60/30 S	518872	6	60	30	55	30	100
UN 6 x 80/50 S	518873	6	80	50	75	30	100
UN 6 x 80/50 F	518876	6	80	50	95	30	100
UN 8 x 60/20 S	518877	8	60	20	75	40	100
UN 8 x 60/20 F	518881	8	60	20	115	40	100
UN 8 x 80/40 S	518878	8	80	40	75	40	100
UN 8 x 80/40 F	518882	8	80	40	115	40	100
UN 8 x 100/60 F	518883	8	100	60	135	40	100
UN 8 x 100/60 S	518879	8	100	60	95	40	100
UN 8 x 120/80 F	518884	8	120	80	135	40	100
UN 8 x 120/80 S	518880	8	120	80	95	40	100

Flat head (F): For fastening thin materials and impact resistance
Countersunk head (S): For a visually appealing and flush fastening

Load table

Highest recommended loads[1) 2)] of a single anchor.

Type	Diameter nail screw	Concrete ≥ C20/25	Solid brick ≥ Mz 12	Solid sand-lime brick ≥ KS 12	Solid lightweight concrete block ≥ V4	Aerated concrete ≥ AAC 2 (G2)	Aerated concrete ≥ AAC 4 (G4)
	F_{rec}[3)] [mm]	F_{rec}[3)] [kN]	F_{rec}[3)] [kN]	F_{rec}[3)] [kN]	F_{rec}[3)] [kN]	F_{rec}[3)] [kN]	F_{rec}[3)] [kN]
UN 6	4	0.2	0.17	0.17	0.11	0.04	0.09
UN 8	5	0.27	0.24	0.25	0.13	0.07	0.11

1) Safety factor requirement considered.

2) Load values apply to the largest screw diameter.

3) Valid for tension, shear, and oblique loads at any angle.

Assortment boxes UB

Versatile plug assortment box.

Upat NYLON Qualität

Description

The Upat plug assortment box UB provides the appropriate assortment of plugs for fixing light to medium loads in almost all building materials. The practical box with a transparent lid contains high-quality Upat plugs in nylon quality as well as the matching screws. The assortment box is commonly used for fixing lamps, pictures, electrical installations, and wall cabinets.

Characteristics

- **Building materials:** Concrete, solid building material, hollow building material
- **Load range:** Tensile load, shear load, and oblique load 0.25-1.15kN
- **Variant:** Ultra plug U (U BOX), Ultra plug U with screw (US S BOX), Universal plug UVD II (UVD II BOX), Universal plug UVD II with screw/angle hook/round hook (UVD II S BOX), Ultra plug U/Universal plug UVD II with screw (MIX BOX)
- **Material plug:** Nylon
- **Material Screw:** Zinc plated steel (zp)
- **Feature:** Drill diameter 5-10mm

Advantages

- **Always have the right plug ready:** With the assortment box, the fastening can be optimally matched to the application and building material on-site
- **No search times:** Thanks to the organizing system, plugs and, depending on the choice, suitable screws, round and angle hooks are pre-sorted and readily available
- **Practical storage system:** The assortment box is compact, easy to transport, and refillable
- **Upat nylon quality:** Robust - durable - recyclable

Materials

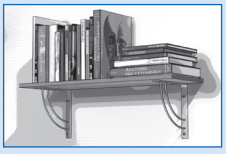
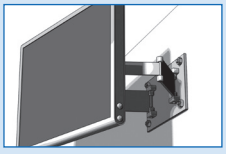
- Concrete
- Plasterboard and gypsum fiberboards
- Porous concrete blocks
- Lightweight concrete hollow blocks
- Hollow core slabs made of brick and concrete
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Natural stone
- Aerated concrete
- Particle boards
- Full gypsum boards
- Lightweight concrete solid blocks
- Solid bricks

Applications

- Towel holder
- Mirror cabinet
- Wall shelves
- Screen consoles

Application examples



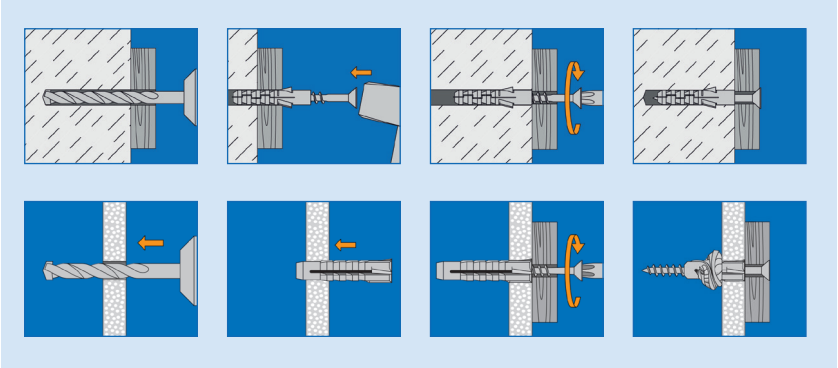



Straight to the product

upat.com/en-ub

Assortment boxes UB

Assembly



Product variants

Name	Art-No.	Content
UB MIX Box	542957	40 x Ultra plug U 5x25, 40 x Ultra plug U 6x30, 30 x Ultra plug U 8x40, 40 x screw S 4x30, 40 x screw S 4x40, 30 x screw S 5x70, 30 x universal plug UVD II 6x30 R, 30 x universal plug UVD II 8x40 R, 10 x universal plug UVD II 10x50 R, 30 x screw S 4.5x50, 30 x screw S 5x70, 10 x screw S 7x65
UB U Box	542955	60 x Ultra plug U 6x30, 60 x Ultra plug U 8x40, 12 x Ultra plug U 10x50
UB US S Box	542956	50 x Ultra plug U 6x30, 30 x Ultra plug U 8x40, 50 x screws S 4.5x40, 30 x screws S 5x55
UB UVD II Box	542958	50 x universal plug UVD II 6x30 R, 50 x universal plug UVD II 8x40 R, 10 x universal plug UVD II 10x50 R
UB UVD II S Box	542959	50 x universal plug UVD II 6x30 R, 25 x universal plug UVD II 8x40 R, 20 x screw 4.5x50, 15 x screw 5x70, 4 x angle hook WH 5.5x70, 4 x round hook RH 5.5x87

Ultra plug U (U BOX): For the right choice of anchor for solid building materials
Ultra plug U with screw (US S BOX): For worry-free fastening in solid building materials
Universal plug UVD II (UVD II BOX): For the right choice of wall plugs for solid, perforated and panel building materials
Universal plug UVD II with screw/angle bracket/round hook (UVD II S BOX): For worry-free fastening in solid, perforated and panel building materials
Ultra plug U/Universal plug UVD II with screw (MIX BOX): For all types of fastening in solid, perforated and panel building materials

Special fixings

Insulation plug UD ..... Page 84

Plasterboard plug UG/UGM ..... Page 86

Brass anchor UM ..... Page 88

Scaffold sleeve UGH ..... Page 90

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Metal expansion anchor UMA ..... Page 100

Brass plug UMD ..... Page 102

Ring nut URI ..... Page 104

Insulation plug UD

Clever insulation plug for thermal bridge-free fastening.

Description

The Upat insulation plug UD is the specialist for fixing light loads in insulation materials. The special thread design allows for easy and flush screwing by hand, allowing the insulation plug to interlock securely with the building material. The insulation plug is commonly used for fixing mailboxes, lamps or motion detectors.

Characteristics

- **Substrate:** Panel building material
- **Load range:** Tensile load, shear load, and oblique load 0.04-0.1kN
- **Feature:** Plug length 50/95mm

Applications

- Wall lights
- Speakers
- Metal brackets
- Mailbox

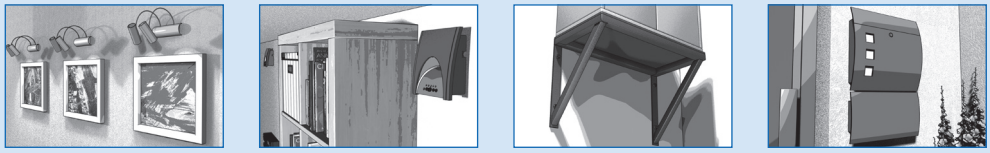
Materials

- Unplastered pressure-resistant insulation boards
- Plastered pressure-resistant insulation boards
- External thermal insulation composite system (ETICS) insulation boards

Advantages

- **Thermal-bridge-free fastening:** Direct fastening in the insulation material prevents thermal bridges
- **Quick installation:** With a thin layer of plaster, the UD can be directly inserted without pre-drilling
- **Easy screwing:** The special thread design allows the insulation anchor to be easily screwed in with a cordless screwdriver or screwdriver
- **Versatile use:** Due to the flush installation of the insulation plug, various types of screws such as chipboard, wood, eye, angle, or hook screws can be used for fastening

Application examples



Straight to the product

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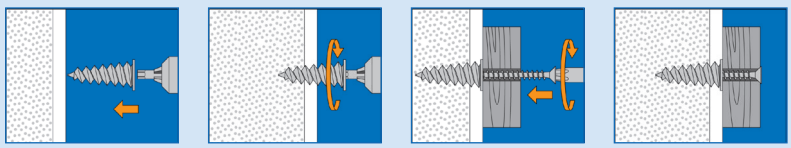
Assembly



Insulation plug UD

Product variants

Name	Art-No.	Anchor length	Min. bolt penetration	Wood and chipboard screws	Sales unit
UD50	541731	50	50	4.5 - 5.0	50
UD95	541732	95	95	8.0	25

Load table

Highest recommended loads[1) 2)] of a single plug.

Type	Diameter screw Ø [mm]	Styropor PS 15 N_{rec}[2)] [kN]
UD 50	4,5 – 5,0	0.04
UD 95	8	0.1

[1)] Safety factor requirement considered

[2)] Load values apply to the largest screw diameter.

[3)] Valid for tension loads.

Plasterboard plug UG/UGM

Universal plasterboard dowel for secure fastening in gypsum fibre and plasterboard.

Description

These are excellent for fastening light to medium loads in plasterboard. They are commonly used for securing pictures, lights, and electrical installations. The plasterboard plugs UG and UGM allow for fastening in gypsum fiberboards. They can accommodate various hooks and eyelets. Suitable for wood, metal, and chipboard screws with diameters ranging from 4 to 5 mm.

Characteristics

- **Building material:** Panel material
- **Load range:** Tensile load, shear load, and oblique load 0.07-0.11 kN
- **Variant:** Metal (UGM), nylon (UG)
- **Feature:** Chipboard screw Ø 4-5mm

Applications

- Paintings
- Lights
- Electrical installations
- Interior accessories
- Series assemblies

Materials

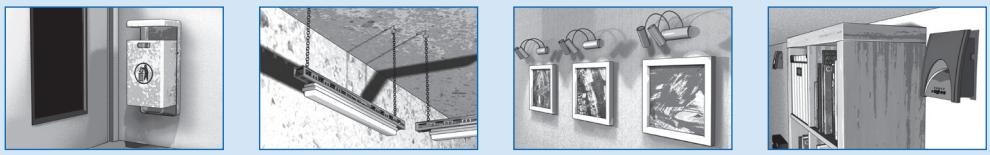
- Gypsum plasterboards, single and double-layered
- Gypsum fiberboards

Advantages

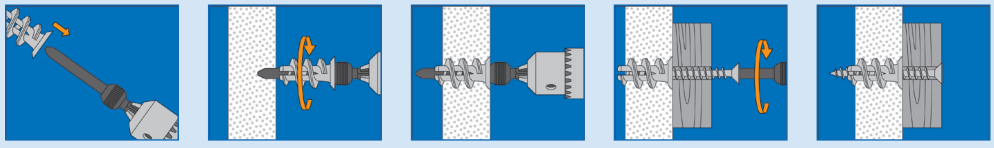
- **Upat nylon quality:** Robust - durable - recyclable
- **Perfect grip:** The specially developed thread securely cuts into the plasterboard
- **High safety:** The compact form of the plasterboard anchor allows for installation even with shallow cavity depth
- **Easy installation:** The metal plasterboard anchor (UGM) can be easily screwed in with a cordless screwdriver or screwdriver. For the nylon plasterboard anchor (UM), the included setting tool handles drilling and setting of the anchor with a cordless screwdriver
- **Versatile use:** Due to flush mounting in the plasterboard, various types of screws such as chipboard, wood, eye, angle, or hook screws can be used for fastening

Upat NYLON Qualität

Application examples



Assembly



Straight to the product

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Plasterboard plug UG/UGM

Product variants

Name	Art-No.	Anchor length	Max. fixture thickness	Wood and chipboard screws	Sales unit
UG	542947	22	25	4.0 - 5.0	100
UGM	542948	31	35	4.0 - 5.0	100

Load table

Highest recommended loads[1) 2)] of a single plug.

Type	Chipboard screw Ø [mm]	Gypsum plasterboard 9,5 mm N_{rec}[2)] [kN]	Gypsum plasterboard 12,5 mm N_{rec}[2)] [kN]	Gypsum plasterboard 2 x 12,5 mm N_{rec}[2)] [kN]
UG/ UGM	4,0 - 5,0	0.07	0.08	0.11

[1)] Safety factor requirement considered.

[2)] Load values apply to the largest screw diameter

[3)] Valid for tension load, shear load, and oblique load at any angle.

Brass anchor UM

Strong brass anchor with metric internal thread for fixings in concrete and solid building materials.

Description

The Upat brass anchor UM is an expansion anchor designed to accommodate metric threads. The brass anchor is ideally suited for fastening shelves, wooden substructures, and metal in solid building materials.

Characteristics

- **Building material:** Concrete, solid construction
- **Load range:** Tensile load, shear load, and oblique load 0.55-2.2 kN
- **Material:** Brass
- **Feature:** Thread M6-M12

Applications

- Screen brackets
- Wall shelves
- Curtain rod
- Metal brackets

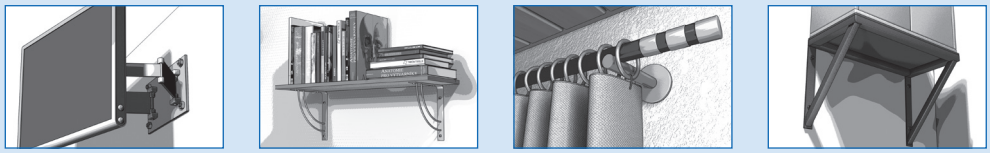
Materials

- Concrete
- Calcium silicate solid bricks
- Natural stone with dense structure
- Full bricks

Advantages

- **Strong hold:** The strong hold with minimal anchoring depth reduces drilling effort and allows for fastenings in thin walls and floors
- **Flexible application:** Made of corrosion-resistant brass, suitable for indoor and outdoor use
- **Installation security:** The unique surface structure of the brass anchor prevents it from rotating in the drill hole
- **Flexible mounting:** The metric internal thread allows for flexible mounting and flush disassembly of threaded rods, hooks, or screws

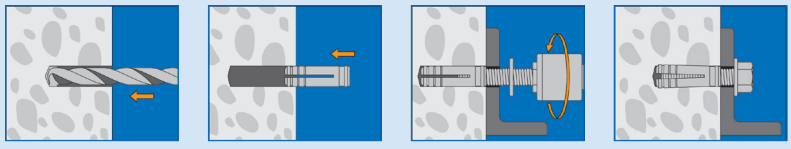
Application examples



Straight to the product

upat.com/en-um

Assembly



Brass anchor UM

Product variants

Name	Art-No.	Drill diameter	Anchor length	Bolt penetration	Thread	Min. drill hole depth	Sales unit
UM 6 x 22	542772	8	22	22	M6	27	100
UM 8 x 28	542773	10	28	28	M8	35	50
UM 10 x 32	542774	12	32	32	M10	39	25
UM 12 x 37	542775	15	37	37	M12	46	10

Load table

Highest recommended loads[1] [2] of a single anchor.

Type	Thread size	Concrete ≥ C20/25 N_{rec}[3] [kN]	Solid brick ≥ Mz 12 N_{rec}[3] [kN]
UM 6 x 22	M6	0.65	0.55
UM 8 x 28	M8	1.1	0.9
UM 10 x 32	M10	1.6	1.3
UM 12 x 37	M12	2.2	1.6

[1] Safety factor requirement considered.

[2] Load values apply with specified metric screw threads.

[3] Valid for tension load, shear load, and oblique load at any angle.

Scaffold sleeve UGH

Expansion plug with long shaft for scaffold fixings.

Description

The Upat scaffold sleeve UGH is an expansion plug with a long shaft designed for heavy loads. This high-quality nylon plug is ideal for fastenings in concrete and solid masonry and achieves high holding values when used with the UGS eye screw. Its slim expansion geometry allows for mounting close to the edge, ensuring a secure grip in scaffolding applications.

Characteristics

- **Building Material:** Concrete, solid construction
- **Load Range:** Tension load, shear load, and oblique load 0.4-1.8kN
- **Material:** Nylon
- **Feature:** Drill diameter 14mm, anchor length 70-135mm

Applications

- Scaffolding anchorage

Materials

- Concrete
- Calcium silicate solid brick
- Natural stone with dense structure
- Solid brick

Advantages

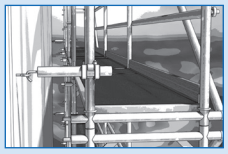
- **Near-edge fastening:** Dual expansion allows for targeted force introduction parallel to the edge of the building material
- **Secure hold:** The scaffold sleeve with a long shaft bridges plaster and insulation layers and provides a secure hold in the load-bearing substrate – DIN 4420-1
- **Coordinated system:** Optimally coordinated system with high holding values, through the combination with the eye screw UGS. Ideal for scaffold anchoring
- **Safe application:** The expansion wings of the scaffold sleeve prevent rotation in the drill hole

Upat NYLON Qualität

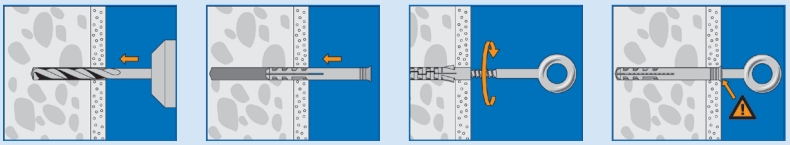
Straight to the product

upat.com/en-ugh

Application examples



Assembly



Scaffold sleeve UGH

Product variants

Name	Art-No.	Drill diameter	Anchor length	Min. drill hole depth for through fixings	Min. effect. anchorage depth	Sales unit
UGH 14/70	542568	14	70	80	70	25
UGH 14/100	542569	14	100	110	70	25
UGH 14/135	542570	14	135	145	70	25

Load table

Highest recommended loads[1) 2)] of a single plug.

Type	Concrete ≥ C20/25 N_{rec}[3)] [kN]	Solid brick ≥ Mz12 N_{rec}[3)] [kN]	Calcium silicate solid brick ≥ KS12 N_{rec}[3)] [kN]	Solid stone from lightweight concrete ≥ V2 N_{rec}[3)] [kN]	Calcium silicate hollow brick ≥ KSL12 N_{rec}[3)] [kN]	Perforated brick ≥ Hlz12 N_{rec}[3)] [kN]	Aerated concrete ≥ PB4/PP4 N_{rec}[3)] [kN]
UGS 12 + UGH 14	1.8	1.3	1.8	1.3	0.4	0.4	0.4

[1)] Safety factor requirement considered.

[2)] Load values apply when using the scaffold screw UGS with the specified Upat anchor.

[3)] Valid for tension loads.

Eye screw UGS

Universal eye screw for use in wood or as a anchor system.

Long Description

The Upat eye screw UGS is a versatile screw eye for use in wood or as an anchor system in concrete and masonry. With its high load capacity, it is an optimal fastening solution for scaffolding, chains, ropes, trellises and clotheslines. The high-quality weld prevents the eye from bending and provides maximum security.

Characteristics

- **Building material:** Solid construction material
- **Load range:** Tensile load, shear load, and oblique load 0.4-1.8 kN
- **Material:** Zinc plated steel (zp)
- **Feature:** Shank diameter 8/12mm, shank length 90-190mm

Applications

- Scaffolding anchoring
- Flower pot

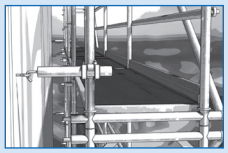
Materials

- Concrete
- Calcium silicate solid bricks
- Natural stone with dense structure
- Full brick
- Full lightweight concrete block

Advantages

- **Reusable fastening solution:** The fastening screw can be easily disassembled and reused
- **Coordinated system:** Optimally coordinated system with high holding values, through the combination with the scaffold sleeve UGH. Ideal for scaffold anchoring
- **Versatile application:** The eye screw can be screwed directly into wood. By using it in the nylon anchor system, the eye screw can be used on almost all substrates

Application examples



Straight to the product

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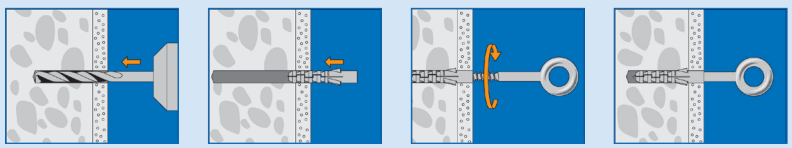
Assembly



Eye screw UGS

Product variants

Name	Art-No.	Eye-ø	Shaft diameter	Shaft length	Sales unit
UGS 8x100	542580	22	8	100	20
UGS 12x90	542581	23	12	90	25
UGS 12x120	541733	23	12	120	25
UGS 12x160	541734	23	12	160	25
UGS 12x190	542582	23	12	190	25

Load table

Highest recommended loads[1) 2)] of a single plug.

Type	Concrete ≥ C20/25 N_{rec}[3)] [kN]	Solid brick ≥ Mz12 N_{rec}[3)] [kN]	Solid sand-lime brick ≥ KS12 N_{rec}[3)] [kN]	Solid block made of lightweight concrete ≥ V2 N_{rec}[3)] [kN]	Sand-lime perforated brick ≥ KSL12 N_{rec}[3)] [kN]	Vertically perforated brick ≥ Hlz12 N_{rec}[3)] [kN]	Aerated concrete ≥ 4/PP4 N_{rec}[3)] [kN]
UGS 8 + U 10	1.15	1.15	1.15	-	-	-	-
UGS 12 + UGH 14	1.8	1.3	1.8	1.3	0.4	0.4	0.4

1) Safety factor requirement considered.

2) Load values apply when using the scaffold screw UGS with the specified Upat anchor.

3) Valid for tension loads..

Toggle anchor UK/UKH

Flexible cavity anchor for strong hold in panel building materials.

Description

The Upat toggle anchor UK with thread and UKH with hook is particularly suitable for fastening light to medium loads in installation and cavity walls. The anchor is inserted into the drilled hole, causing the toggle element to flip in the cavity and securely position itself on the panel material. The Upat Toggle Anchor UK/UKH is commonly used for mounting speakers, towel holders or mirrored cabinets.

Characteristics

- **Building material:** Panel construction
- **Load range:** Tensile load, shear load, and oblique load 0.07-4.3 kN
- **Material:** Zin plated steel (zp)
- **Variant:** External thread (UK), hook (UKH)
- **Feature:** Thread M3-M10

Applications

- Speakers
- Towel holders
- Mirror cabinet
- Metal brackets

Materials

- Gypsum plasterboard and gypsum fiberboard
- Hollow decks made of brick and concrete
- Particle boards
- Plywood

Advantages

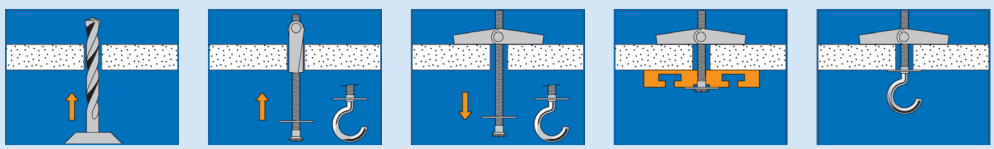
- **High load capacity:** The wide tilting element allows for high load-bearing capacities in panel materials or cavities
- **Flexible fixing:** The long thread of the toggle anchor provides flexibility in panel thickness and attachment thickness
- **Easy installation:** The toggle anchor is suitable for pre-positioned installation and does not require special installation tools
- **External thread (UK):** For precise adjustment of clamping thickness
- **Hook (UKH):** For fixing suspensions and hangers

Application examples

Straight to the product

upat.com/en-uk

Assembly



Toggle anchor UK/UKH

Product variants

Name	Art-No.	Drill diameter	Anchor length	Thread	Max. panel thickness	Min. cavity depth	Sales unit
UK M3	542776	12	95	M3 x 90	65	27	50
UK M4	542777	14	105	M4 x 100	69	34	25
UK M5	542778	16	100	M5 x 100	63	70	25
UK M6	542779	16	100	M6 x 100	63	70	25
UK M8	542780	20	100	M8	55	75	20
UK M10	542781	30	180	M10	90	140	25
UKH M3	542782	12	105	M3 x 80	51	27	25
UKH M4	542783	16	130	M4 x 70	60	70	25
UKH M5	542784	14	95	M5 x 90	35	34	20

External thread (UK): For precise adjustment of clamping thickness
Hook (UKH): For fixing suspensions and hangers

Load table

Highest recommended loads[1) 2)] of a single plug.

Type	Thread size	Recommended loads in the respective base material[2)]	Gypsum plasterboard[3)] 12,5 mm	OSB board[3)] ≥15 mm	Mean ultimate loads
		F_{rec}[1)]	F_{rec}[1)]	F_{rec}[1)]	F_U[4)5)6)]
	[M]	[kN]	[kN]	[kN]	[kN]
UK 3	M4	0.45	0.15	0.34	-
UK 4	M4	0.9	0.15	0.58	-
UK 5	M5	2.2	0.15	0.85	-
UK 6	M6	2.8	0.15	0.85	-
UK 8	M8	4.3	0.18	0.89	-
UK 10	M10	-	-	-	13
UKH 3	M3	0.07	0.07	0.07	-
UKH 4	M4	0.13	0.13	0.13	-
UKH 5	M5	0.3	0.15	0.3	-

1) Valid for axial tensile load.

2) Required safety factors are considered.

3) Bending of the hook is decisive. Only for tension load.

4) Upon these failure loads an appropriate safety factor has to be considered.

5) Valid for tensile load, shear load and oblique load under any angle.

6) If the failure of the base material is not possible.

Hollow wall anchor UH/UHZ

Robust hollow wall plug made of metal with metric internal thread and screw for multiple loosening and fastening of the attachment.

Description

The Upat hollow wall anchor UH, with its metric internal thread and screw, is an ideal solution for multiple uses in all panel construction materials. When mounted with the Upat hollow cavity pliers UHZ, the hollow wall anchor expands in the cavity and presses tightly against the back of the panel. The Upat hollow wall metal anchor UH is commonly used for fastening lightweight wall shelves or lights.

Characteristics

- **Building material:** Panel construction
- **Load range:** Tension load, shear load, and oblique load 0.05-0.5kN
- **Material:** Zinc plated steel (zp)
- **Variant:** Screw (S), hook (H)
- **Feature:** Thread M4-M8, anchor length 32-65mm
- **Accessory:** Setting tool UHZ

Applications

- Wall lights
- Wall shelves
- Curtain rods
- Wall cabinets

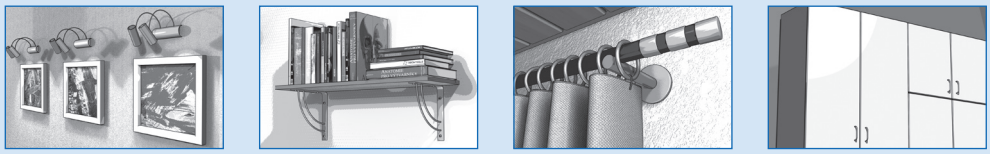
Materials

- Wood wool lightweight panels
- Hollow decks
- Plywood & Chipboard panels
- Gypsum plasterboards and gypsum fiberboards

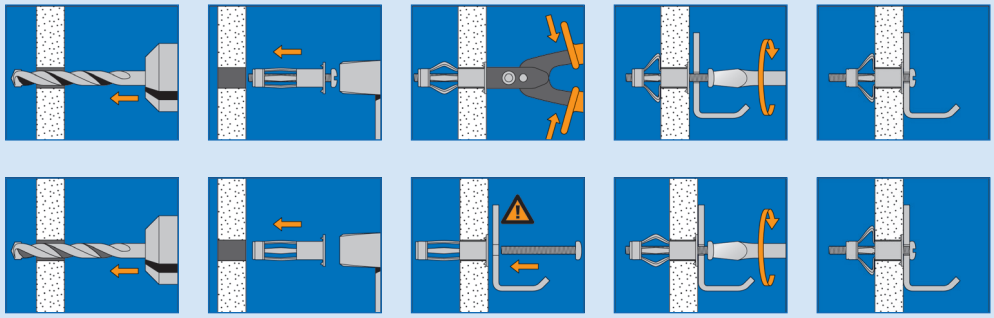
Advantages

- **Flexible mounting:** Screws can be flexibly mounted and flush dismantled using the metric internal thread
- **High load capacity:** The four-fold expansion in the cavity achieves high load-bearing capacities in panel building materials or cavities
- **Versatile use:** The cavity anchor offers versatile use with the supplied pan head or angle screw
- **Optimized installation:** Ideal for pre-installation. The installation pliers UHZ enable quick and efficient installation
- **Safe application:** The metal claws on the anchor's edge prevent the cavity anchor from rotating in the drill hole

Application examples



Assembly



Straight to the product

upat.com/en-uh

Hollow wall anchor UH/UHZ

Product variants

Name	Art-No.	Drive	Drill diameter	Anchor length	Min. drill hole depth	Panel thickness	Screw dimension	Sales unit	Content
UH 4x32 H	542945	-	8	32	45	3 - 13	-	50	50 x hollow wall anchor, 50 x hooks
UH 5x65 H	542946	-	10	65	71	20 - 34	-	50	50 x hollow wall anchor, 50 x hooks
UH 4x32 S	542785	PH2	8	32	40	3 - 13	M4x40	50	50 x hollow wall anchor, 50 x screws
UH 4x45 S	542786	PH2	8	45	52	16 - 23	M4x52	50	50 x hollow wall anchor, 50 x screws
UH 5x37 S	542787	PH2	10	37	45	6 - 15	M5x45	50	50 x hollow wall anchor, 50 x screws
UH 5x52 S	542788	PH2	10	52	58	7 - 21	M5x58	50	50 x hollow wall anchor, 50 x screws
UH 5x65 S	542789	PH2	10	65	71	20 - 34	M5x71	50	50 x hollow wall anchor, 50 x screws
UH 6x37 S	542790	PH3	12	37	45	6 - 15	M6x45	50	50 x hollow wall anchor, 50 x screws
UH 6x52 S	542791	PH3	12	52	58	7 - 21	M6x58	50	50 x hollow wall anchor, 50 x screws
UH 6x65 S	542792	PH3	12	65	71	17 - 34	M6x71	50	50 x hollow wall anchor, 50 x screws
UH 8x54 S	542944	SW 13	12	54	60	7 - 21	M8x60	50	50 x hollow wall anchor, 50 x screws
UHZ	542793	-	-	-	-	-	-	1	1 x setting tool

Load table

Highest recommended loads[1] [2] of a single plug.

Type	Thread size	Gypsum plasterboard 9,5 mm	Gypsum plasterboard 12,5 mm	Gypsum plasterboard 19 mm (2x9,5 mm)	Gypsum plasterboard 15 mm (2x12,5 mm)	Chipboard 10 mm	Chipboard 13 mm	Chipboard 28 mm
		F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]
	[M]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]
UH 4x32 S	M4	0.15	0.2	-	-	0.25	0.25	-
UH 4x45 S	M4	0.15	0.2	-	-	0.25	0.25	-
UH 5x37 S	M5	0.15	0.2	-	-	0.25	0.25	-
UH 5x52 S	M5	0.15	0.2	0.25	-	0.25	0.25	-
UH 5x65 S	M5	-	-	-	0.3	-	-	0.5
UH 6x37 S	M6	0.15	0.2	-	-	0.25	0.25	-
UH 6x52 S	M6	-	0.2	0.25	-	0.25	0.25	-
UH 6x65 S	M6	-	-	-	0.3	-	-	0.5
UH 8x54 S	M8	-	0.2	0.25	-	0.25	0.25	-

[1] Required safety factors are considered.

[2] Valid for tensile load, shear load and oblique load under any angle.

Load table

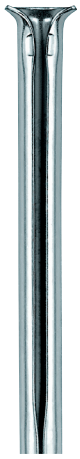
Highest recommended loads[1] [2] of a single plug.

Type	Thread size	Plywood 4 mm	Hardboard 3 mm	Wood wool slab 16 mm	Wood wool slab 25 mm	Fibre cement board 8 mm	Gypsum fibreboard 10 mm	Gypsum fibreboard 15 mm
		F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]	F_{rec}[2]
	[M]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]
UH 4x32 S	M4	0.1	0.1	-	-	0.25	0.25	-
UH 4x45 S	M4	-	-	0.05	-	0.25	0.25	0.25
UH 5x37 S	M5	-	-	-	-	0.25	0.25	0.25
UH 5x52 S	M5	-	-	0.05	-	0.25	0.25	0.25
UH 5x65 S	M5	-	-	-	0.05	-	-	-
UH 6x37 S	M6	-	-	-	-	0.25	0.25	0.25
UH 6x52 S	M6	-	-	0.05	-	-	0.25	0.25
UH 6x65 S	M6	-	-	-	0.05	-	-	-
UH 8x54 S	M8	-	-	0.05	-	-	0.25	0.25

[1] Required safety factors are considered.

[2] Valid for tensile load, shear load and oblique load under any angle.

Nail sleeve UNH



Time-saving spring toggle sleeve for quick installation.

Description

The Upat nail sleeve UNH is a user-friendly expansion sleeve for light-duty fastenings. Made of corrosion-coated spring steel, the UNH is quickly driven into solid building materials through its geometry, saving time in through-hole installations. Its simple installation requires neither plugs nor screws. This makes it easy and cost-effective to attach wooden and metal substructures as well as metal profiles in solid building materials, both indoors and temporarily outdoors.

Characteristics

- **Building material:** Concrete, solid construction
- **Load range:** Tensile load 0.5-0.7 kN, shear load 1.4-2 kN
- **Material:** Corrosion-coated spring steel
- **Feature:** Drill diameter 6/8mm, Anchor length 60-110mm, Effective length 30-70mm

Applications

- Wooden substructures
- Lighting strips
- Speakers
- Metal brackets

Advantages

- **Easy installation:** The one-piece nail sleeve requires no additional screws or plugs
- **Time-saving assembly:** The nail sleeve can be set directly through the fixture in through-hole installation
- **Flexible application range:** Due to the corrosion-coated spring steel, it can be used indoors and temporarily outdoors
- **Secure grip:** Through the tensioning of the entire sleeve length in solid building material

Materials

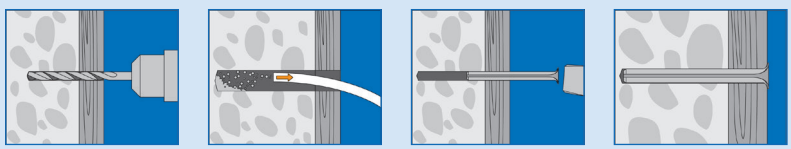
- Concrete
- Calcium silicate solid bricks
- Natural stone with dense structure
- Solid bricks

Application examples

Straight to the product

upat.com/en-unh

Assembly



Nail sleeve UNH

Product variants

Name	Art-No.	Drill diameter	Anchor length	Effect. anchorage depth	Max. fixture thickness	Min. drill hole depth for through fixings	Sales unit
UNH 6x60	542583	6	60	30	30	70	100
UNH 6x80	542584	6	80	30	50	90	100
UNH 8x70	547150	8	70	40	30	80	100
UNH 8x90	542585	8	90	40	50	100	50
UNH 8x110	542586	8	110	40	70	120	50

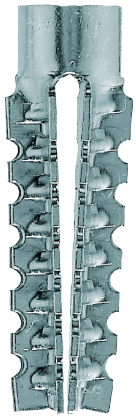
Load table

Recommended loads[1] of a single anchor as part of a multiple fixing of non-structural systems

Type	Anchorage in concrete ≥ C20/25		
	Minimum member thickness	Recommended tension load	Recommended shear load
		N_{rec}	V_{rec}
	[mm]	[kN]	[kN]
UNH 6	60	0.5	1.4
UNH 8	70	0.7	2

[1] Required safety factors are considered.

Metal expansion anchor UMA



Installation-friendly metal expansion anchor for wood and chipboard screws.

Description

The Upat metal expansion anchor UMA is a user-friendly expansion plug. The plug is suitable for fastenings in concrete, aerated concrete, solid and hollow building materials, as well as in solid plasterboard. This special plug can be flexibly installed in pre-set and aerated concrete without pre-drilling. The metal teeth securely anchor into the building material when screwed in, enabling high load-bearing capacity. The ribbed internal geometry of the UMA ensures secure screw guidance for wood and chipboard screws. The metal expansion anchor UMA is a specialist in installation technology and finds its application in the fastening of, for example, gas and water pipes, cable and pipe clamps.

Characteristics

- **Building material:** Concrete, solid construction, panel construction
- **Load range:** Tensile load, shear load, and oblique load 0.2-0.6 kN
- **Material:** Zin plated steel (zp)
- **Feature:** Drill diameter 6-10mm

Materials

- Concrete
- Perforated clay bricks
- Hollow block made of lightweight concrete
- Hollow decks made of brick and concrete
- Calcium silicate perforated bricks
- Calcium silicate solid bricks
- Natural stone with dense structure
- Aerated concrete
- Solid block made of lightweight concrete
- Full gypsum boards

Advantages

- **Wide range of applications:** Suitable for a variety of building materials. Proven for fixing gas and water pipes as well as cable and pipe clamps
- **Versatile use:** Due to the flush installation in the building material, various types of screws such as chipboard screws, wood screws, eye screws, angle screws, or hook screws can be used for fixing
- **Safe application:** Thanks to the special internal geometry for screw guidance

Applications

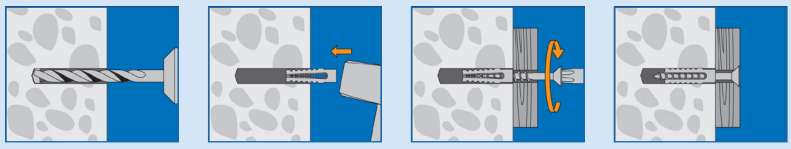
- Cable channels
- Wall lights
- Speakers
- Electrical installations
- Pipeline routes

Application examples

Straight to the product

upat.com/en-uma

Assembly



Metal expansion anchor UMA

Product variants

Name	Art-No.	Drill diameter	Anchor length	Min. drill hole depth	Screw diameter	Sales unit
UMA 6x32	542949	6	32	38	5.0 - 6.0	100
UMA 8x38	542950	10	38	46	6.0 - 8.0	100
UMA 10x60	542951	12	60	68	8.0 - 10.0	50

Load table

Highest recommended loads[1) 2)] of a single anchor.

Type	Wood screw diameter Ø [mm]	Aerated concrete ≥ AAC 2 F_{rec}[3)] [kN]	Aerated concrete ≥ AAC 4 F_{rec}[3)] [kN]
UMA 8x38	8	0.2	0.3
UMA 10x60	10	0.4	0.6

1) Required safety factors are considered.

2) The given loads are valid for wood screws with maximum diameter

3) Recommended loads in the respective base material.

Brass plug UMD

Compact brass anchor with metric internal thread for minimal anchorage depths.

Description

The Upat brass plug UMD is a compact special anchor with a metric internal thread. Particularly due to its low required anchorage depth, the UMD is the solution for fastening in thin panels as well as in solid building materials. It is used for fastening handles, support brackets, or lamps, for example.

Characteristics

- **Building material:** Concrete, solid construction, panel construction
- **Load range:** Tensile load, shear load, and oblique load 0.2-1.95 kN
- **Material:** Brass
- **Feature:** Internal thread M6/M8, anchor length 7.5-25mm

Materials

- Wood panel materials
- Plastic panels
- Concrete
- Full bricks
- Calcium silicate solid bricks
- Natural stone with dense structure

Advantages

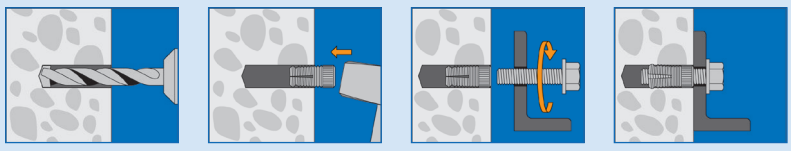
- **Minimal anchoring depth:** The compact brass anchor allows for fastenings in particularly thin building materials
- **Flexible mounting:** The metric internal thread allows screws to be flexibly mounted and flush disassembled
- **Wide range of applications:** The corrosion-resistant brass enables indoor and outdoor use
- **Secure application:** The unique surface structure of the brass anchor prevents it from rotating in the drill hole

Applications

- Cable channels
- Wall lights
- Speakers
- Wall cabinet

Application examples

Assembly



Straight to the product

upat.com/en-umd

Brass plug UMD

Product variants

Name	Art-No.	Drill diameter	Anchor length	Bolt penetration	Thread	Min. drill hole depth	Min. effect. anchorage depth	Sales unit
UMD M6/7,5	542952	8	7,5	7.5	M6	7,5	7.5	200
UMD M6/10,5	542953	8	10,5	10.5	M6	10,5	10.5	100
UMD M8/25	542954	10	25	25	M8	25	25	50

Load table

Highest recommended loads[1] [2] of a single anchor.

Type	Thread size [M]	Chipboard F_{rec}[3] [kN]	Fir wood F_{rec}[3] [kN]	Beech wood F_{rec}[3] [kN]	Plastic material F_{rec}[3] [kN]	Solid brick F_{rec}[3] [kN]
UMD M6/7,5	M6	0.2	0.18	0.5	0.75	-
UMD M6/10,5	M6	0.3	0.25	0.75	1.5	-
UMD M8/25	M8	-	-	-	-	1.95

[1] Required safety factors are considered.

[2] The given loads are valid for metric screws with the specified thread size.

[3] Valid for tensile load, shear load and oblique load under any angle.

Ring nut URI

Eyelet fastening for all dowels with threaded bolts.

Description

The Upat eye nut URI is a fastening solution for all anchors with threaded bolts. Thanks to its metric internal thread, the eye nut can be combined with a variety of steel anchors and threaded rods, making it reusable. Depending on the anchor used, the URI can be used in concrete, solid, and hollow building materials.

Characteristics

- **Load range:** Tensile load, shear load, and oblique load 0.7-2.3 kN
- **Material:** Zink plated steel (zp)
- **Feature:** Thread M8/M10

Applications

- Hanging baskets
- Ropes
- Chains
- Trellises
- Lighting
- Clothes lines

Advantages

- **Flexible use:** The metric internal thread allows the ring nut URI to be used flexibly with a variety of steel anchors and threaded rods
- **Reusable fastening solution:** The ring nut can be easily dismantled and reused

Materials

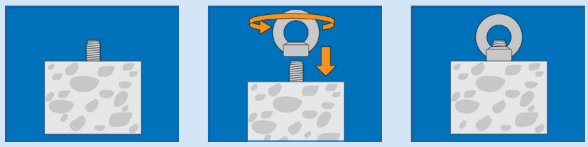
- Concrete, cracked and uncracked
- Full and perforated stone

Straight to the product

upat.com/en-uri

Application examples

Assembly



Ring nut URI

Product variants

Name	Art-No.	Eye-ø	Total height	Thread	Sales unit
URI M8	541741	20	36	M8	20
URI M10	541742	25	45	M10	10

Load table

Recommended loads[1] for ring nuts.

Type	Thread size [M]	Axial tension on single ring nut F_{rec} [kN]	Axial or oblique tension up to 45° on a group of two ring nuts F_{rec} [kN]	Shear or oblique tension up to 45° on a group of two ring nuts for lateral arrangement F_{rec} [kN]
URI M8	M8	1.4	1	0.7
URI M10	M10	2.3	1.7	1.15

[1] Required safety factors are considered.

[2] The given loads apply for the use of ring nuts as permanent anchorage. For varying use of different components to be lifted ring nuts with next larger thread diameter has to be use (see DIN 582).

Terms and Conditions

Upat Vertriebs GmbH

I. General

1. Our following General Terms and Conditions apply exclusively. We do not recognise any terms and conditions of the customer that conflict with or deviate from our General Terms and Conditions, unless we have expressly agreed to their validity in writing. We do not recognise any deviating terms and conditions of the customer even if we execute the order without reservation in the knowledge that the customer's terms and conditions conflict with or deviate from our General Terms and Conditions. Our sales staff are not authorised to make verbal side agreements or give assurances that go beyond the written contract.

II. Offer, order confirmation

1. Our offers are subject to change. We reserve the right to make technical changes and changes in form, colour and/or weight within reasonable limits.
2. A delivery transaction based on an order placed by the customer is concluded upon our written order confirmation or upon delivery of the goods.
3. In the case of call-off orders, the goods must be called off within 6 months of the order being placed at the latest. If the goods are not called off within this period, we shall be entitled to invoice the purchase price. From the date of invoicing of the goods, we shall be entitled to charge storage costs for their provision at the rates applicable to the forwarding industry.

III. Prices

1. We are bound to the agreed prices for 4 months from the date of conclusion of the contract. Thereafter, invoices shall be issued at the prices valid on the date of dispatch plus the value added tax applicable at that time. Prices are ex works.

IV. Terms of payment

1. Our invoices are due for payment without deduction 30 days after the invoice date. We grant a 2% discount for payment within 14 days of the invoice date. Payments shall always be offset against the oldest invoice due.
2. If the payment deadline is exceeded, we shall be entitled to charge interest at the statutory rate from this point in time without reminder. This interest rate shall be higher if we can prove that we have incurred a higher interest rate.
3. If, after the order has been placed, there is a significant deterioration in the financial circumstances of the customer or if we only become aware of a previous deterioration in the financial circumstances after the order has been placed, we shall be entitled, at our discretion, to demand either advance payment or security.
4. Payments by bill of exchange require prior agreement. No discount shall be granted for payments by bill of exchange.
5. The customer may only offset claims that are undisputed or have been legally established. The assignment of claims of the customer against us is excluded.

V. Delivery

1. Delivery periods are only binding if agreed in writing. If delivery is not made within a period agreed in writing and a reasonable grace period has not been observed by us, the customer is entitled to withdraw from the contract. Compliance with delivery periods requires that the customer complies with the agreed terms of payment and other obligations.
2. If we are unable to meet the delivery time due to circumstances beyond our control, such as natural disasters, war, riots, acts of high authority, energy shortages or industrial action at our premises or those of our suppliers, the delivery time shall be extended automatically by the duration of these circumstances. If the hindering circumstances last longer than 4 weeks, the contractual partner shall be entitled to withdraw from the contract.

VI. Shipping conditions

1. Shipping is ex works or ex warehouse. Partial deliveries are always permitted. Transport is always at the expense and risk of the recipient, even for shipments delivered free to the receiving station and even if our own transport personnel are used. Unless otherwise agreed, we shall determine the means of transport and the transport route without being responsible for choosing the fastest and cheapest option.
2. Special requests by the customer (e.g. expedited shipping, special packaging, commissioning of a specific carrier) will be taken into account as far as possible against payment of any additional costs.
3. If shipping is delayed due to circumstances for which the customer is responsible, the risk shall pass to the customer from the day on which the goods are ready for shipment. In all other respects, the risk shall pass to the customer upon handover of the goods to the carrier, even in the case of carriage paid delivery.

VII. Warranty

1. We guarantee that our goods are free from defects in accordance with the current state of technology. We reserve the right to make changes in design or construction which do not affect the functionality or value of the ordered item and which do not justify a complaint. The same applies to manufacturing-related dimensional tolerances. If special requirements are made with regard to dimensional accuracy, these must be expressly stated and agreed in each individual case when the order is placed. The assurance of properties requires our written declaration or confirmation in all cases. Obvious defects must be reported in writing within 14 days of delivery, otherwise warranty claims for obvious defects are excluded.
2. The customer shall have no rights in respect of minor defects in the goods. In all other respects, the customer may only demand subsequent performance, i.e. repair or replacement. Section 439 (3) sentence 1 of the German Civil Code (BGB) remains unaffected. Returns of goods by the customer require our prior approval. However, the customer is entitled to withdraw from the contract or demand a reduction in the purchase price at their discretion if the subsequent performance fails, in particular if it is impossible, if we do not succeed within a reasonable period of time, if we refuse to do so or if we delay it culpably.
3. Claims for damages by the customer due to a defect remain unaffected by the provision under X. of these terms and conditions.
4. The warranty period is 24 months from delivery of the item.
5. We shall not be liable for material defects in our goods resulting from unsuitable or improper use, faulty assembly or commissioning by the customer or third parties, normal wear and tear, faulty or negligent handling, or for the consequences of improper modifications or repair work carried out by the customer or third parties without our consent. The same applies to defects that only insignificantly reduce the value or suitability of the goods.
6. The quality of the goods is based exclusively on the agreed specifications. Promotional claims in advertising materials do not constitute a contractual description of the quality of the goods.
7. The customer shall only have statutory rights of recourse against us to the extent that the customer has not entered into any agreement with its customer that goes beyond the statutory claims for defects.

VIII. Withdrawal in the event of breach of duty

1. The customer shall not be entitled to withdraw from the contract due to non-performance or non-contractual performance if we are not responsible for the breach of duty.
2. The above clause 1 does not apply if special agreements give the customer a right of withdrawal regardless of fault. Furthermore, the above clause 1 does not apply in the event of a defect in the goods. In this case, the statutory provisions of sales law apply unless otherwise specified in these General Terms and Conditions.

IX. Retention of title

1. We retain title to the delivered goods until the customer has paid all claims we have against him. Bills of exchange and cheques shall only be deemed paid after they have been honoured.
2. The customer may sell the goods to which we have retained title in the ordinary course of business unless he is in default of payment or has suspended payments. He may not pledge the goods or assign them as security. We must be notified immediately of any seizures of the goods subject to retention of title, enclosing the seizure report. If the customer sells the goods, he hereby assigns to us, until all our claims against him arising from the sale have been settled, all rights against his customers, including all ancillary rights and securities. If the purchaser's claims from the resale of our goods are included in a current account, he hereby assigns to us his payment claim in the amount of the respective and recognised balance, namely in the amount of our claims against the purchaser.
3. The processing or transformation of the purchased item by the purchaser shall always be carried out on our behalf. If the purchased item is processed or mixed with other items that do not belong to us, we shall acquire co-ownership of the new item in proportion to the value of the purchased item to the other processed or mixed items at the time of processing or mixing. The customer also assigns to us the claim to secure our claims against him which arise against a third party through the connection of the goods with a piece of land.
4. We shall be entitled to withdraw from the contract and demand the return of the goods in the event of breach of contract by the customer, in particular in the event of default in payment.
5. The customer may collect the claims assigned to us unless he is in default of payment or has suspended payments. If the value of the security granted to us exceeds our claim against the customer by more than 10%, we shall be obliged to release it at the customer's request.

X. Claims for damages

1. Claims for damages by the customer, regardless of the legal basis, in particular due to breach of obligations arising from the contractual relationship and from tort, are excluded.
2. This does not apply to claims under the Product Liability Act, in cases of intent, gross negligence, claims arising from a guarantee, injury to life, limb or health and breach of essential contractual obligations. However, compensation for slightly negligent breach of essential contractual obligations shall be limited to the foreseeable damage typical for this type of contract. The same applies to claims due to grossly negligent behaviour on the part of simple vicarious agents.
3. Claims for damages in the event of liability for intent shall become time-barred in accordance with the statutory provisions. In all other respects, claims for damages by the customer shall become time-barred 12 months after the claim arises and the customer becomes aware of the circumstances giving rise to the claim and the identity of the debtor.

XI. Return of goods

1. Goods shall only be taken back or exchanged if we have expressly agreed to the return or exchange before the goods are returned by the customer.

XII. Place of performance, place of jurisdiction

1. Unless otherwise stated in the order confirmation, our place of business shall be the place of performance.
2. The law of the Federal Republic of Germany shall apply. The provisions of the UN Convention on Contracts for the International Sale of Goods shall not apply.
3. If the customer is a merchant, a legal entity under public law or a special fund under public law, the exclusive place of jurisdiction for all disputes arising from this contract shall be our place of business. The same shall apply if the customer does not have a general place of jurisdiction in Germany or if the customer's place of residence or habitual abode is unknown at the time the action is brought.

Status as of 01.06.2021

Upat Vertriebs GmbH
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Germany

Status as of 2025

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000509931 · 07/2025 · Printed in Germany. Subject to technical changes.