



Hilti HIT-HY 270 Adhesive Anchor (Anchorage) Submission Folder

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Injectable mortar HIT-HY 270



BASE MATERIALS

- Concrete (aerated)
- Masonry (hollow)
- Masonry (solid)

APPLICATIONS

- Fastenings in hollow and solid masonry
- Refurbishment and renovation
- Facade tie-backs to masonry structural walls
- Structural strengthening of old masonry walls
- Heavy bracing of items such as sun shades installed on insulated surfaces

ADVANTAGES

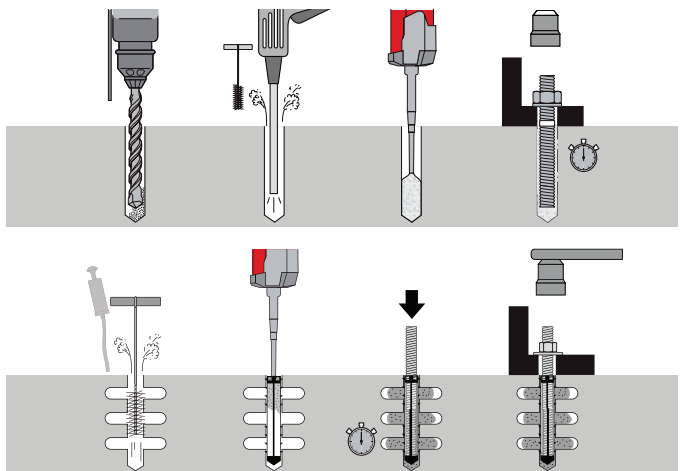
- Makes strong, reliable and easily installed fastenings in a variety of masonry base materials
- Suitable for indoor and outdoor applications as well as use in dry and wet hole conditions
- HIT-SC composite sleeves offer greater flexibility through use of multiple sleeve combinations and also minimize mortar wastage by allowing more accurate dosing in hollow base materials
- Fastenings in masonry can be designed using the new masonry design software which is part of PROFIS Anchor
- ETA approval for use in masonry plus technical data that allows high application flexibility
- Performs reliably, even when the size and location of bricks and voids are unknown



Approvals

ETA ETA-13-1036-for-HIT-HY-270-injection-mortar-for-anchoring-in-masonry

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



These are abbreviated instructions which may vary according to the application.

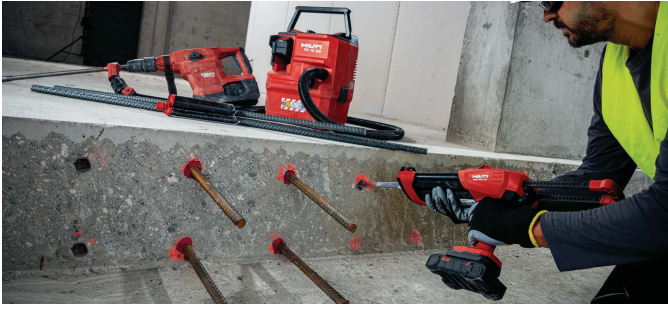
Technical data	
Cleaning procedures	Compressed-air cleaning, Manual cleaning
SAFEset	No
Anchoring elements	HIT-IC internally-threaded rods, HIT-SC mesh sleeves, HIT-S mesh sleeves, HAS-U threaded rods
Approvals / test reports	ETA, Fire
Fire resistance	Yes
PROFIS software	Yes

Ordering designation	Package contents	Sales pack quantity	Item number
HIT-HY 270 330/2	1x Foil pack, 2x Mixer, 1x Mixer extension	1 pc	2095982
HIT-HY 270 500/2	1x Foil pack, 2x Mixer, 1x Mixer extension	1 pc	2095983 ¹⁾
HY 270 500/2 + HDE A22 Dispenser	80x foil pack, 1x Dispenser HDE 500-A22, 1x Cartridge Holder	1 pc	3733225

¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Dispenser HDE 500-22



APPLICATIONS

- Injecting Hilti HIT epoxy or adhesive mortar for fastening anchor rods and rebar in concrete and masonry
- Dispensing Hilti firestop foams (only when packaged in compatible soft foil packs)

ADVANTAGES

- Faster anchoring
- Significantly reduce mortar wastage
- Improve fastener safety and reliability
- Repeat and resume functions
- On the Nuron battery platform

Technical data

Power source type	Compact B22-55 or B22-85 battery pack
Dispenser type	Battery
Performance (at 20°C)	55 sec (RE100 500 ml)
B22-55 Battery capacity	100 cartridges (500 ml)
Dimension (L x W x H)	440mm x 120mm x 230 mm
Modes available	Off / continuous / smart discard / measured volume dispensing with ml
Dispensing volume per trigger	1 ml

Order Now



Ordering designation	Content per can/cartridge	Sales pack quantity	Item number
HDE 500-22 + CB (Ultimate) 110V	1x Cordl. dispenser HDE 500-22, 1x Cartridge holder HIT-CB, 1x Battery pack B 22-55, 1x Battery charger C 4-22 110V	1 pc	3880132
HDE 500-22 + CR (Ultimate) 110V	1x Cordl. dispenser HDE 500-22, 1x Cartridge holder HIT-CR, 1x Battery pack B 22-55, 1x Battery charger C 4-22 110V	1 pc	3880183
HDE 500-22 + CB (Ultimate) 230V	1x Cordl. dispenser HDE 500-22, 1x Cartridge holder HIT-CB, 1x Battery pack B 22-55, 1x Battery charger C 4-22 230V	1 pc	3880184
HDE 500-22 + CR (Ultimate) 230V	1x Cordl. dispenser HDE 500-22, 1x Cartridge holder HIT-CR, 1x Battery pack B 22-55, 1x Battery charger C 4-22 230V	1 pc	3880186
Battery pack B 22-85 Li-ion	-	1 pc	2251351
Battery charger C 4-22 110V	-	1 pc	2372874
Battery charger C 4-22 230V	-	1 pc	2372873

Please visit Hilti website for the latest item numbers and related products

HILTI SAFE-SET TECHNOLOGY

A small step for engineers.
And a giant leap forward for your next design.

Now you can design anchor rod and post-installed rebar connections with more confidence. Inadequately cleaning holes during installation can reduce the performance of conventional chemical anchor systems significantly. Hilti **SAFE-SET** Technology eliminates this factor almost entirely – in both cracked or uncracked concrete and with anchor rods or post-installed rebar.

APPLICATIONS

- Post-installed rebar connections for concrete slab, column or wall extensions
- Heavy-duty anchoring in cracked or uncracked concrete, e.g. for steel beams, column

WHAT IS SAFE-SET

Hilti **SAFE-SET** Technology eliminates the most load-affecting and time-consuming step in the installation process: cleaning the hole before injection of the adhesive. As a consequence, engineers can now have peace of mind because the specified application will perform on the jobsite as it has been designed in the plan.



HIT-RE 500 V3





HIT-HY 200-R



HIT-RE 100

SAFE-SET Application Ranges

		Thread rod size	M8	M10	M12	M16	M20	M24	M27	M30
		Drill hole dia.	(10mm)	(12mm)	(14mm)	(18mm)	(22mm)	(28mm)	(30mm)	(35mm)
Anchoring 	HIT-HY 200-R, standard drill bit and HIT-Z Rod (zero cleaning)		SAFE-SET							
	HIT-HY 200-R, HIT-RE100, HIT-RE 500 V3, Hollow Drill Bits and HAS-E Rod, HAS-U Rod			SAFE-SET						
Rebar 	HIT-HY 200-R, HIT-RE100, HIT-RE 500 V3, Hollow Drill Bits and rebar (auto-cleaning)		SAFE-SET							
		Rebar size	Y8	Y10	Y12	Y16	Y20	Y25	Y32	
		Drill hole dia.	(12mm)	(14mm)	(16mm)	(20mm)	(25mm)	(32mm)	(40mm)	

INTRODUCING HILTI SAFESET TECHNOLOGY

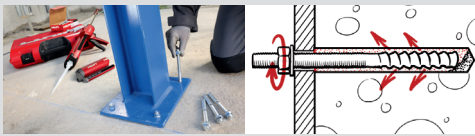
Once in a blue moon, something comes along with the power to accelerate the way you work.

SAFESET

SAFEset is a registered trade mark of HILTI.

1 ZERO CLEANING SOLUTION. HIT-Z anchor rods + HIT-HY 200-R

The new Hilti HIT-Z anchor rod works as a torque-controlled bonded anchor. Because of their unique shape, HIT-Z anchor rods, used in hammer-drilled holes in dry or water-saturated concrete above 5°C, are not affected by uncleaned holes. The benefits are clear: fewer steps and more productivity in anchoring applications.



Hilti **SAFESET** Technology
Up to 60% faster!



Anchor diameter range	M8 to M20
Material	Carbon or stainless steel (A4)
Embedment depth	Up to 12 times rod diameter
Concrete compressive strengths	C20/25 to C50/60
Installation temperature range	5°C to 40°C



2 AUTO-CLEANING SOLUTION. Hollow drill bits + HIT-HY 200-R / HIT-RE 100 / HIT-RE 500 V3

Hilti TE-CD and TE-YD hollow drill bits, in conjunction with HIT-HY 200-R, HIT-RE 100 or HIT-RE 500 V3, make subsequent hole cleaning completely unnecessary. Dust is removed by the Hilti vacuum system while drilling is in progress for faster drilling and a virtually dustless working environment.



Hilti **SAFESET** Technology
Up to 60% faster!

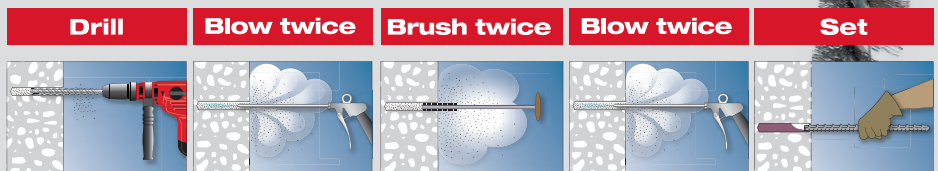


Rebar diameter range	Y8 to Y25
Threaded rod diameters	M10 to M30
Embedment depth	Up to 1000 mm
Concrete compressive strengths	C20/25 to C50/60
Installation temperature range	-10°C to 40°C



3 CONVENTIONAL SOLUTION. Brush and blow

Another option is to continue using the traditional hole cleaning method with any Hilti HIT system for superior performance.



*Cleaning Sequence when using manual dust pump are : blow twice , brush twice , blow twice.



Rebar diameter range	Y8 to Y40
Threaded rod diameters	M8 to M39
Embedment depth	Up to 20 times element diameter
Concrete compressive strengths	C20/25 to C50/60
Installation temperature range	-10°C to 40°C



SUMMARY TABLE FOR CHEMICAL ANCHORS

		HIT-HY 200-R	HIT-RE 500 V3	HIT-RE 100	HIT-HY 270
					
HIT-Z		■			
HAS-U		■	■	■	■
HIS-N		■	■	■	■
Setting tool TE-C					
Setting tool HIS-S					
Mixer HIT-RE-M		■	■	■	■
Profi accessories for HIT		■	■	■	■
HIT-SC					■
CR Cartridge holder		■			
CB Cartridge holder			■	■	■
HDE Dispenser		■	■	■	■
TE-CD/YD Hollow drill bit		■	■	■	
VC 20/40 Vacuum cleaner		■	■	■	
Setting tool TE-C-E/ TE-Y-E					
Blow-out pump		■	■	■	■
Steel brush		■	■	■	■

Anchor rod HAS-U 5.8 (Galvanized, grade 5.8)



Approvals	
ETA	ETA 15/0882 for HIT-RE 100 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 16/0143 for HIT-RE 500V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



Technical data	
Head configuration	Externally threaded
Material composition	Steel, 5.8 grade, zinc-plated (min. 5µm)
Material, corrosion	Steel, zinc-plated

Order Now



Ordering designation	Anchor size	Anchor length	Drill bit diameter	Base plate clearance hole	Sales pack quantity	Item number
HAS-U 5.8 M6x75	M6	75mm	8mm	7mm	20pc	2223936 ¹⁾
HAS-U 5.8 M6x105	M6	105mm	8mm	7mm	20pc	2223704 ¹⁾
HAS-U 5.8 M8x80	M8	80mm	10mm	9mm	20pc	2223852 ¹⁾
HAS-U 5.8 M8x110	M8	110mm	10mm	9mm	20pc	2223853
HAS-U 5.8 M8x150	M8	150mm	10mm	9mm	20pc	2223854 ¹⁾
HAS-U 5.8 M10x95	M10	95mm	12mm	12mm	20pc	2223705 ¹⁾
HAS-U 5.8 M10x115	M10	115mm	12mm	12mm	20pc	2223706 ¹⁾
HAS-U 5.8 M10x130	M10	130mm	12mm	12mm	20pc	2223707
HAS-U 5.8 M10x170	M10	170mm	12mm	12mm	20pc	2223709 ¹⁾
HAS-U 5.8 M10x190	M10	190mm	12mm	12mm	20pc	2223820 ¹⁾
HAS-U 5.8 M12x110	M12	110mm	14mm	14mm	20pc	2223821 ¹⁾
HAS-U 5.8 M12x120	M12	120mm	14mm	14mm	20pc	2223822 ¹⁾
HAS-U 5.8 M12x160	M12	160mm	14mm	14mm	20pc	2223823
HAS-U 5.8 M12x180	M12	180mm	14mm	14mm	20pc	2223825 ¹⁾
HAS-U 5.8 M12x200	M12	200mm	14mm	14mm	20pc	2223826 ¹⁾
HAS-U 5.8 M12x220	M12	220mm	14mm	14mm	20pc	2223827 ¹⁾
HAS-U 5.8 M12x260	M12	260mm	14mm	14mm	20pc	2223867 ¹⁾
HAS-U 5.8 M12x300	M12	300mm	14mm	14mm	20pc	2223868 ¹⁾
HAS-U 5.8 M16x150	M16	150mm	18mm	18mm	20pc	2223828 ¹⁾
HAS-U 5.8 M16x165	M16	165mm	18mm	18mm	20pc	2223829 ¹⁾
HAS-U 5.8 M16x190	M16	190mm	18mm	18mm	20pc	2223830
HAS-U 5.8 M16x220	M16	220mm	18mm	18mm	10pc	2223869 ¹⁾
HAS-U 5.8 M16x260	M16	260mm	18mm	18mm	10pc	2223832 ¹⁾
HAS-U 5.8 M16x300	M16	300mm	18mm	18mm	10pc	2223870
HAS-U 5.8 M16x350	M16	350mm	18mm	18mm	10pc	2223871 ¹⁾
HAS-U 5.8 M16x500	M16	500mm	18mm	18mm	10pc	2223872 ¹⁾
HAS-U 5.8 M20x180	M20	180mm	22mm	22mm	10pc	2223873 ¹⁾
HAS-U 5.8 M20x240	M20	240mm	22mm	22mm	10pc	2223874
HAS-U 5.8 M20x260	M20	260mm	22mm	22mm	10pc	2223876
HAS-U 5.8 M20x300	M20	300mm	22mm	22mm	10pc	2223877 ¹⁾
HAS-U 5.8 M20x350	M20	350mm	22mm	22mm	10pc	2223878 ¹⁾
HAS-U 5.8 M20x400	M20	400mm	22mm	22mm	10pc	2223879 ¹⁾
HAS-U 5.8 M20x480	M20	480mm	22mm	22mm	10pc	2223880
HAS-U 5.8 M24x300	M24	300mm	28mm	26mm	5pc	2223881
HAS-U 5.8 M24x450	M24	450mm	28mm	26mm	5pc	2223882 ¹⁾

¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

HAS-U 5.8 HDG



Approvals	
ETA	ETA 15/0882 for HIT-RE 100 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 16/0143 for HIT-RE 500V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.

Technical data	
Head configuration	Externally threaded
Material composition	Steel, 5.8 grade, zinc-plated (min. 43µm)
Material, corrosion	Steel, zinc-plated

Order Now

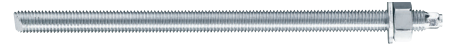


Ordering designation	Anchor size	Anchor length	Drill bit diameter	Base plate clearance hole	Sales pack quantity	Item number
HAS-U 5.8 HDG M8x80	M8	80mm	10mm	9mm	20pc	2223856 ¹⁾
HAS-U 5.8 HDG M8x110	M8	110mm	10mm	9mm	20pc	2223857 ¹⁾
HAS-U 5.8 HDG M8x150	M8	150mm	10mm	9mm	20pc	2223858 ¹⁾
HAS-U 5.8 HDG M10x95	M10	95mm	12mm	12mm	20pc	2223859 ¹⁾
HAS-U 5.8 HDG M10x115	M10	115mm	12mm	12mm	20pc	2223860 ¹⁾
HAS-U 5.8 HDG M10x130	M10	130mm	12mm	12mm	20pc	2223861 ¹⁾
HAS-U 5.8 HDG M10x170	M10	170mm	12mm	12mm	20pc	2223862 ¹⁾
HAS-U 5.8 HDG M10x190	M10	190mm	12mm	12mm	20pc	2223863 ¹⁾
HAS-U 5.8 HDG M12x110	M12	110mm	14mm	14mm	20pc	2223937 ¹⁾
HAS-U 5.8 HDG M12x120	M12	120mm	14mm	14mm	20pc	2223938 ¹⁾
HAS-U 5.8 HDG M12x160	M12	160mm	14mm	14mm	20pc	2223939 ¹⁾
HAS-U 5.8 HDG M12x180	M12	180mm	14mm	14mm	20pc	2223940 ¹⁾
HAS-U 5.8 HDG M12x200	M12	200mm	14mm	14mm	20pc	2223941 ¹⁾
HAS-U 5.8 HDG M12x220	M12	220mm	14mm	14mm	20pc	2223942 ¹⁾
HAS-U 5.8 HDG M12x260	M12	260mm	14mm	14mm	20pc	2223895 ¹⁾
HAS-U 5.8 HDG M12x300	M12	300mm	14mm	14mm	20pc	2223896 ¹⁾
HAS-U 5.8 HDG M16x150	M16	150mm	18mm	18mm	20pc	2223943 ¹⁾
HAS-U 5.8 HDG M16x165	M16	165mm	18mm	18mm	20pc	2223944 ¹⁾
HAS-U 5.8 HDG M16x190	M16	190mm	18mm	18mm	20pc	2223945 ¹⁾
HAS-U 5.8 HDG M16x220	M16	220mm	18mm	18mm	10pc	2223946 ¹⁾
HAS-U 5.8 HDG M16x260	M16	260mm	18mm	18mm	10pc	2223897 ¹⁾
HAS-U 5.8 HDG M16x300	M16	300mm	18mm	18mm	10pc	2223898 ¹⁾
HAS-U 5.8 HDG M16x350	M16	350mm	18mm	18mm	10pc	2223899 ¹⁾
HAS-U 5.8 HDG M16x500	M16	500mm	18mm	18mm	10pc	2223900 ¹⁾
HAS-U 5.8 HDG M20x180	M20	180mm	22mm	22mm	10pc	2223901 ¹⁾
HAS-U 5.8 HDG M20x240	M20	240mm	22mm	22mm	10pc	2223902 ¹⁾
HAS-U 5.8 HDG M20x260	M20	260mm	22mm	22mm	10pc	2223903 ¹⁾
HAS-U 5.8 HDG M20x300	M20	300mm	22mm	22mm	10pc	2223904 ¹⁾
HAS-U 5.8 HDG M20x350	M20	350mm	22mm	22mm	10pc	2223905 ¹⁾
HAS-U 5.8 HDG M20x400	M20	400mm	22mm	22mm	10pc	2223906 ¹⁾
HAS-U 5.8 HDG M20x480	M20	480mm	22mm	22mm	10pc	2223907 ¹⁾
HAS-U 5.8 HDG M24x300	M24	300mm	28mm	26mm	5pc	2223908 ¹⁾
HAS-U 5.8 HDG M24x450	M24	450mm	28mm	26mm	5pc	2223909 ¹⁾

¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Anchor rod HAS-U 8.8 (Galvanized, grade 8.8)



Approvals	
ETA	ETA 15/0882 for HIT-RE 100 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 16/0143 for HIT-RE 500V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



Technical data	
Head configuration	Externally threaded
Material composition	Steel, 8.8 grade, zinc-plated (min. 5µm)
Material, corrosion	Steel, zinc-plated

Order Now



Ordering designation	Anchor size	Anchor length	Drill bit diameter	Base plate clearance hole	Sales pack quantity	Item number
HAS-U 8.8 M8x150	M8	150mm	10mm	9mm	20pc	2223855 ¹⁾
HAS-U 8.8 M10x190	M10	190mm	12mm	12mm	20pc	2223833
HAS-U 8.8 M12x220	M12	220mm	14mm	14mm	20pc	2223834
HAS-U 8.8 M12x300	M12	300mm	14mm	14mm	20pc	2223883
HAS-U 8.8 M16x190	M16	190mm	18mm	18mm	20pc	2223835 ¹⁾
HAS-U 8.8 M16x300	M16	300mm	18mm	18mm	10pc	2223884 ¹⁾
HAS-U 8.8 M16x380	M16	380mm	18mm	18mm	10pc	2223885
HAS-U 8.8 M20x180	M20	180mm	22mm	22mm	10pc	2223886 ¹⁾
HAS-U 8.8 M20x260	M20	260mm	22mm	22mm	10pc	2223887 ¹⁾
HAS-U 8.8 M20x400	M20	400mm	22mm	22mm	10pc	2223888 ¹⁾
HAS-U 8.8 M24x300	M24	300mm	28mm	26mm	5pc	2223889 ¹⁾
HAS-U 8.8 M27x340	M27	340mm	30mm	30mm	5pc	2223890 ¹⁾
HAS-U 8.8 M30x380	M30	380mm	35mm	33mm	5pc	2223891 ¹⁾
HAS-U 8.8 M33x420	M33	420mm	37mm	36mm	5pc	2223892 ¹⁾
HAS-U 8.8 M36x460	M36	460mm	40mm	39mm	5pc	2223893 ¹⁾
HAS-U 8.8 M39x510	M39	510mm	42mm	42mm	5pc	2223894 ¹⁾

¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

HAS-U 8.8 HDG



Approvals	
ETA	ETA 15/0882 for HIT-RE 100 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 16/0143 for HIT-RE 500V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



Technical data	
Head configuration	Externally threaded
Material composition	Steel, 8.8 grade, zinc-plated (min. 43µm)
Material, corrosion	Steel, zinc-plated

Order Now



Ordering designation	Anchor size	Anchor length	Drill bit diameter	Base plate clearance hole	Sales pack quantity	Item number
HAS-U 8.8 HDG M8x150	M8	150mm	10mm	9mm	20pc	2223947 ¹⁾
HAS-U 8.8 HDG M10x190	M10	190mm	12mm	12mm	20pc	2223948 ¹⁾
HAS-U 8.8 HDG M12x220	M12	220mm	14mm	14mm	20pc	2223949 ¹⁾
HAS-U 8.8 HDG M12x300	M12	300mm	14mm	14mm	20pc	2223910 ¹⁾
HAS-U 8.8 HDG M16x190	M16	190mm	18mm	18mm	20pc	2223703 ¹⁾
HAS-U 8.8 HDG M16x300	M16	300mm	18mm	18mm	10pc	2223911 ¹⁾
HAS-U 8.8 HDG M16x380	M16	380mm	18mm	18mm	10pc	2223912 ¹⁾
HAS-U 8.8 HDG M20x180	M20	180mm	22mm	22mm	10pc	2223913 ¹⁾
HAS-U 8.8 HDG M20x260	M20	260mm	22mm	22mm	10pc	2223914 ¹⁾
HAS-U 8.8 HDG M20x400	M20	400mm	22mm	22mm	10pc	2223915 ¹⁾
HAS-U 8.8 HDG M24x300	M24	300mm	28mm	26mm	5pc	2223916 ¹⁾
HAS-U 8.8 HDG M27x340	M27	340mm	30mm	30mm	5pc	2223917 ¹⁾
HAS-U 8.8 HDG M30x380	M30	380mm	35mm	33mm	5pc	2223918 ¹⁾

¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Anchor rod HAS-U (A4 stainless steel)



Approvals

ETA	ETA 15/0882 for HIT-RE 100 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 16/0143 for HIT-RE 500V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



Technical data

Head configuration	Externally threaded
Material composition	Steel, A4 (SS316)
Material, corrosion	Steel, stainless

Order Now



Ordering designation	Anchor size	Anchor length	Drill bit diameter	Base plate clearance hole	Sales pack quantity	Item number
HAS-U A4 M8x80	M8	80mm	10mm	9mm	20pc	2223864
HAS-U A4 M8x110	M8	110mm	10mm	9mm	20pc	2223865
HAS-U A4 M8x150	M8	150mm	10mm	9mm	20pc	2223866
HAS-U A4 M10x95	M10	95mm	12mm	9mm	20pc	2223836
HAS-U A4 M10x115	M10	115mm	12mm	12mm	20pc	2223837 ¹⁾
HAS-U A4 M10x130	M10	130mm	12mm	12mm	20pc	2223838
HAS-U A4 M10x170	M10	170mm	12mm	12mm	20pc	2223839 ¹⁾
HAS-U A4 M10x190	M10	190mm	12mm	12mm	20pc	2223840
HAS-U A4 M10x220	M10	220mm	12mm	12mm	20pc	2223841 ¹⁾
HAS-U A4 M12x110	M12	110mm	14mm	14mm	20pc	2223842 ¹⁾
HAS-U A4 M12x120	M12	120mm	14mm	14mm	20pc	2223843 ¹⁾
HAS-U A4 M12x160	M12	160mm	14mm	14mm	20pc	2223844
HAS-U A4 M12x180	M12	180mm	14mm	14mm	20pc	2223845 ¹⁾
HAS-U A4 M12x200	M12	200mm	14mm	14mm	20pc	2223846 ¹⁾
HAS-U A4 M12x220	M12	220mm	14mm	14mm	20pc	2223847
HAS-U A4 M12x260	M12	260mm	14mm	14mm	20pc	2223919 ¹⁾
HAS-U A4 M12x300	M12	300mm	14mm	14mm	20pc	2223920
HAS-U A4 M16x150	M16	150mm	18mm	18mm	20pc	2223848 ¹⁾
HAS-U A4 M16x165	M16	165mm	18mm	18mm	20pc	2223849 ¹⁾
HAS-U A4 M16x190	M16	190mm	18mm	18mm	20pc	2223850
HAS-U A4 M16x220	M16	220mm	18mm	18mm	20pc	2223851
HAS-U A4 M16x260	M16	260mm	18mm	18mm	10pc	2223921 ¹⁾
HAS-U A4 M16x300	M16	300mm	18mm	18mm	10pc	2223922 ¹⁾
HAS-U A4 M16x350	M16	350mm	18mm	18mm	10pc	2223923 ¹⁾
HAS-U A4 M16x380	M16	380mm	18mm	18mm	10pc	2223924
HAS-U A4 M20x180	M20	180mm	22mm	22mm	10pc	2223925 ¹⁾
HAS-U A4 M20x240	M20	240mm	22mm	22mm	10pc	2223926
HAS-U A4 M20x260	M20	260mm	22mm	22mm	10pc	2223927
HAS-U A4 M20x300	M20	300mm	22mm	22mm	10pc	2223928 ¹⁾
HAS-U A4 M20x350	M20	350mm	22mm	22mm	10pc	2223929 ¹⁾
HAS-U A4 M20x400	M20	400mm	22mm	22mm	10pc	2223930 ¹⁾
HAS-U A4 M20x480	M20	480mm	22mm	22mm	10pc	2223931
HAS-U A4 M24x300	M24	300mm	28mm	26mm	5pc	2223932
HAS-U A4 M24x450	M24	450mm	28mm	26mm	5pc	2223933 ¹⁾
HAS-U A4 M27x340	M27	340mm	30mm	30mm	5pc	2223934 ¹⁾
HAS-U A4 M30x380	M30	380mm	35mm	33mm	5pc	2223935 ¹⁾

¹⁾ For detailed stock availability and lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Internally threaded sleeve HIS-N (Galvanized, grade 5.8)



Approvals	
ETA	ETA 04/0027 for HIT-RE 500 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 04/0027 for HIT-RE 500 V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



Technical data	
Head configuration	Inner thread
Material composition	Steel, 5.8 grade, zinc-plated (min. 5 µm)
Material, corrosion	Steel, zinc-plated
Anchor type	Internally threaded

Order Now



Ordering designation	Anchor size	Drill bit diameter	Drilling depth	Base plate clearance hole	Sales pack quantity	Item number
HIS-N M8x90	M8	14 mm	90 mm	9 mm	10 pc	258015¹⁾
HIS-N M10x110	M10	18 mm	110 mm	12 mm	10 pc	258016¹⁾
HIS-N M12x125	M12	22 mm	125 mm	14 mm	5 pc	258017¹⁾
HIS-N M16x170	M16	28 mm	170 mm	18 mm	5 pc	258018¹⁾
HIS-N M20x205	M20	32 mm	205 mm	22 mm	5 pc	258019¹⁾

¹⁾ This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Internally threaded sleeve HIS-RN (A4 stainless steel)



Approvals	
ETA	ETA 04/0027 for HIT-RE 500 injection mortar for anchoring applications (ETAG 001-05, Option 7)
	ETA 04/0027 for HIT-RE 500 V3 injection mortar for anchoring applications (ETAG 001-05, Option 7)
ETA, seismic	ETA 12/0084 for HIT-HY 200-R injection mortar and standard element for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.



Technical data	
Head configuration	Inner thread
Material composition	Steel, A4 (SS316)
Material, corrosion	Steel, stainless
Anchor type	Internally threaded

Order Now

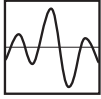


Ordering designation	Anchor size	Drill bit diameter	Drilling depth	Base plate clearance hole	Sales pack quantity	Item number
HIS-RN M8x90 A4	M8	14 mm	90 mm	9 mm	10 pc	258024¹⁾
HIS-RN M10x110 A4	M10	18 mm	110 mm	12 mm	10 pc	258025
HIS-RN M12x125 A4	M12	22 mm	125 mm	14 mm	5 pc	258026
HIS-RN M16x170 A4	M16	28 mm	170 mm	18 mm	5 pc	258027¹⁾
HIS-RN M20x205 A4	M20	32 mm	205 mm	22 mm	5 pc	258028¹⁾

¹⁾ This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Anchor rod HIT-Z (Galvanized)



SAFESET



Approvals

ETA, seismic	ETA 12/0006 for HIT-HY 200-A injection mortar and HIT-Z(R) rod for anchoring applications (ETAG 001-05, Option 1)
	ETA 12/0006 for HIT-HY 200-R injection mortar and HIT-Z(R) rod for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.

Technical data

Head configuration	Externally threaded
Material composition	Steel, zinc-plated (min. 5 µm)
Material, corrosion	Steel, zinc-plated
Anchor type	Off-the-shelf rods
Approvals / test reports	ETA
Tested/approved for diamond drilling	Yes



Order Now Watch Video

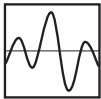


Ordering designation	Anchor size	Drill bit diameter	Max. fixture thickness at standard embedment depth	Base plate clearance hole	Required tightening torque	Sales pack quantity	Item number
HIT-Z M8x80	M8	10 mm	8 mm	9 mm	10 Nm	40 pc	2018364 ¹⁾
HIT-Z M8x100	M8	10 mm	28 mm	9 mm	10 Nm	40 pc	2018365
HIT-Z M8x120	M8	10 mm	48 mm	9 mm	10 Nm	40 pc	2018366 ¹⁾
HIT-Z M10x95	M10	12 mm	22 mm	12 mm	25 Nm	40 pc	2018367 ¹⁾
HIT-Z M10x115	M10	12 mm	42 mm	12 mm	25 Nm	40 pc	2018368
HIT-Z M10x135	M10	12 mm	62 mm	12 mm	25 Nm	40 pc	2018369
HIT-Z M10x160	M10	12 mm	87 mm	12 mm	25 Nm	40 pc	2018410 ¹⁾
HIT-Z M12x105	M12	14 mm	29 mm	14 mm	40 Nm	20 pc	2018411 ¹⁾
HIT-Z M12x140	M12	14 mm	64 mm	14 mm	40 Nm	20 pc	2018412 ¹⁾
HIT-Z M12x155	M12	14 mm	79 mm	14 mm	40 Nm	20 pc	2018413
HIT-Z M12x196	M12	14 mm	120 mm	14 mm	40 Nm	20 pc	2018415 ¹⁾
HIT-Z M16x155	M16	18 mm	38 mm	18 mm	80 Nm	12 pc	2018416 ¹⁾
HIT-Z M16x175	M16	18 mm	58 mm	18 mm	80 Nm	12 pc	2018417 ¹⁾
HIT-Z M16x205	M16	18 mm	88 mm	18 mm	80 Nm	12 pc	2018418 ¹⁾
HIT-Z M16x240	M16	18 mm	123 mm	18 mm	80 Nm	12 pc	2018419 ¹⁾
HIT-Z M20x215	M20	22 mm	91 mm	22 mm	150 Nm	6 pc	2018420
HIT-Z M20x250	M20	22 mm	126 mm	22 mm	150 Nm	6 pc	2018421 ¹⁾

¹⁾ This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Anchor rod HIT-Z-R (A4 stainless steel)



SAFESET



Approvals

ETA, seismic	ETA 12/0006 for HIT-HY 200-A injection mortar and HIT-Z(R) rod for anchoring applications (ETAG 001-05, Option 1)
	ETA 12/0006 for HIT-HY 200-R injection mortar and HIT-Z(R) rod for anchoring applications (ETAG 001-05, Option 1)

Approvals and test reports may apply to selected products only. Please refer to the documents for details.

Technical data

Head configuration	Externally threaded
Material composition	Steel, A4 (SS316)
Material, corrosion	Steel, stainless
Anchor type	Off-the-shelf rods
Approvals / test reports	ETA
Tested/approved for diamond drilling	Yes



Order Now

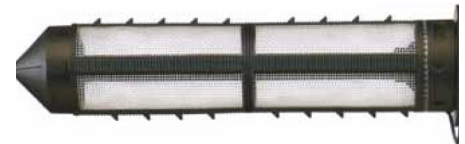


Ordering designation	Anchor size	Drill bit diameter	Max. fixture thickness at standard embedment depth	Required tightening torque	Sales pack quantity	Item number
HIT-Z-R M8x80	M8	10 mm	8 mm	10 Nm	40 pc	2018422 ¹⁾
HIT-Z-R M8x100	M8	10 mm	28 mm	10 Nm	40 pc	2018423 ¹⁾
HIT-Z-R M8x120	M8	10 mm	48 mm	10 Nm	40 pc	2018424 ¹⁾
HIT-Z-R M10x95	M10	12 mm	22 mm	25 Nm	40 pc	2018425
HIT-Z-R M10x115	M10	12 mm	42 mm	25 Nm	40 pc	2018426
HIT-Z-R M10x135	M10	12 mm	62 mm	25 Nm	40 pc	2018427
HIT-Z-R M10x160	M10	12 mm	87 mm	25 Nm	40 pc	2018428 ¹⁾
HIT-Z-R M12x105	M12	14 mm	29 mm	40 Nm	20 pc	2018429 ¹⁾
HIT-Z-R M12x140	M12	14 mm	64 mm	40 Nm	20 pc	2018430 ¹⁾
HIT-Z-R M12x155	M12	14 mm	79 mm	40 Nm	20 pc	2018431 ¹⁾
HIT-Z-R M12x196	M12	14 mm	120 mm	40 Nm	20 pc	2018433 ¹⁾
HIT-Z-R M16x155	M16	18 mm	38 mm	80 Nm	12 pc	2018434 ¹⁾
HIT-Z-R M16x175	M16	18 mm	58 mm	80 Nm	12 pc	2018435 ¹⁾
HIT-Z-R M16x205	M16	18 mm	88 mm	80 Nm	12 pc	2018436
HIT-Z-R M16x240	M16	18 mm	123 mm	80 Nm	12 pc	2018437 ¹⁾
HIT-Z-R M20x215	M20	22 mm	91 mm	150 Nm	6 pc	2018438 ¹⁾
HIT-Z-R M20x250	M20	22 mm	126 mm	150 Nm	6 pc	2018439 ¹⁾

¹⁾ This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Composite mesh sleeve HIT-SC (for the use with HIT-HY 270)



BASE MATERIALS

- Concrete (hollow deck)
- Drywall
- Masonry (hollow)
- Masonry (hollow CMU)
- Masonry (multiple-wythe brick/ unreinforced masonry)

Technical data

Material composition	Plastic
Anchor type	Mesh sleeve
Installation direction	All

Order Now



Ordering designation	Sleeve size	Anchor size use with	Drill bit diameter	Drilling depth	Sales pack quantity	Item number
HIT-SC 12x50	12	M6	12 mm	60 mm	20 pc	375979 ¹⁾
HIT-SC 16x50	16	M8/M10	16 mm	60 mm	20 pc	375981
HIT-SC 16x85	16	M8/M10	16 mm	95 mm	20 pc	375982
HIT-SC 18x50	18	M12	18 mm	60 mm	20 pc	360485 ¹⁾
HIT-SC 18x85	18	M12	18 mm	95 mm	20 pc	360486 ¹⁾
HIT-SC 22x85	22	M12	22 mm	95 mm	10 pc	284511 ¹⁾

¹⁾ This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Safety glasses



Technical data	
Lens	PC material
Thickness	2.1 mm
Coating	Optidur NCH coating
Filter	2C-1.2
Impact energy	45 m/s

Order Now



Ordering designation	Sales pack quantity	Item number
Safety glasses PP EY-CA NCH clear	1 pc	2065449

Please visit Hilti website for the latest item numbers and related products

Accessories for blowing out

APPLICATIONS

- For fast and efficient removal of dust and debris from drilled holes of varying diameters and depths to allow correct installation of anchors and rebar



Technical data	
Dispenser, setting tool, accessory, tester type	Cleaning accessories

Order Now



Ordering designation	Sales pack quantity	Item number
Blow-out pump	1 pc	60579
Extension tube HIT-VL 16/0.7	10 pc	336646 ¹⁾

Please visit Hilti website for the latest item numbers and related products

Accessories for blowing out (Air nozzle)

APPLICATIONS

- Clearing dust and debris from drilled holes under various conditions including where adhesive anchors are set at great depth

ADVANTAGES

- Fast, effective cleaning of drilled holes



Technical data

Dispenser, setting tool, accessory, tester type Cleaning accessories

Order Now



Ordering designation	Drill hole diameter	Sales pack quantity	Item number
Air nozzle HIT-DL 20	20 mm	1 pc	371719 ¹⁾
Air nozzle HIT-DL 25	25 mm	1 pc	371720 ¹⁾
Air nozzle HIT-DL 32	32 mm	1 pc	371721 ¹⁾

¹⁾This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Accessories for brushing

APPLICATIONS

- For the proper brushing of drilled holes of varying diameters and embedment depths



Technical data

Dispenser, setting tool, accessory, tester type Cleaning accessories

Order Now



8

Ordering designation	Package contents	Sales pack quantity	Item number
Brush extension HIT-RBH	30 cm extension with handle for manual cleaning fitting to all RB diameter.	1 pc	229138
Brush extension HIT-RBV	30 cm extension used between RBH (handle) and all RB diameter.	1 pc	238727 ¹⁾
Brush extension HIT-RBS-10/0.35	35 cm extension for machine cleaning fitting to all RB diameter.	1 pc	371722 ¹⁾
Holder TE-C	Connection end for C and SDS end. Works with RBS.	1 pc	263437 ¹⁾
Holder TE-Y	Connection end for Y end. Works with RBS.	1 pc	263439 ¹⁾
Round steel brush HIT-RB 12	Brush diameter - 12 mm. Use with HIT-RBH/RBV	1 pc	336548
Round steel brush HIT-RB 16	Brush diameter - 16 mm. Use with HIT-RBH/RBV	1 pc	336550
Round steel brush HIT-RB 20	Brush diameter - 20 mm. Use with HIT-RBH/RBV	1 pc	336552
Round steel brush HIT-RB 25	Brush diameter - 25 mm. Use with HIT-RBH/RBV	1 pc	336553 ¹⁾
Round steel brush HIT-RB 32	Brush diameter - 32 mm. Use with HIT-RBH/RBV	1 pc	336554
Round steel brush HIT-RB 40	Brush diameter - 40 mm. Use with HIT-RBH/RBV	1 pc	382260 ¹⁾
Round steel brush HIT-RB 52	Brush diameter - 52 mm. Use with HIT-RBH/RBV	1 pc	382265 ¹⁾

¹⁾This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Accessories for injection in deep / overhead holes application

APPLICATIONS

- For injection of Hilti HIT adhesive mortars in a variety of situations including deep holes, overhead holes and in underwater applications



ADVANTAGES

- Injection pistons and flexible extension hoses help ensure consistent injection of the adhesive into the hole without formation of air voids

Technical data

Dispenser, setting tool, accessory, tester type Cleaning accessories

Order Now



Ordering designation	Drill hole diameter	Sales pack quantity	Item number
Hose HIT-VL 11/1.0 (Plastic tube)	-	10 pc	2042533 ¹⁾
Coupler VL-K (connect HIT-VL)	-	10 pc	335021 ¹⁾
Piston plug HIT-SZ 20	20 mm	10 pc	2039312
Piston plug HIT-SZ 25	25 mm	10 pc	2039315
Piston plug HIT-SZ 30	30 mm	10 pc	2039317
Piston plug HIT-SZ 40	40 mm	10 pc	2039325 ¹⁾
Piston plug HIT-SZ 47	47 mm	10 pc	2039332 ¹⁾

¹⁾ This is a non-stock item. For detailed lead time information please contact your Hilti representative.

Please visit Hilti website for the latest item numbers and related products

Accessories for overhead applications



Technical data

Dispenser, setting tool, accessory, tester type Mixing nozzles and injection accessories

Order Now



Ordering designation	Sales pack quantity	Item number
Drip guard HIT-OHC1 (for fastener Ø10-20 mm)	10 pc	387551
Drip guard HIT-OHC2 (for fastener Ø22-32 mm)	10 pc	387552
Wedge HIT-OHW	100 pc	387550

Please visit Hilti website for the latest item numbers and related products

HIT-HY 270 injection mortar

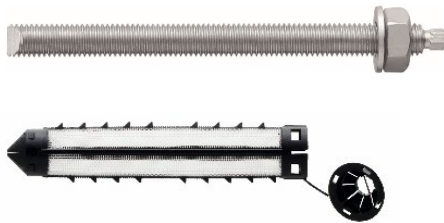
Anchor design (TR 054) / Rods&Sleeves / Masonry

Injection mortar system



Hilti HIT-HY 270

330 ml foil pack
(also available as
500 ml foil pack)



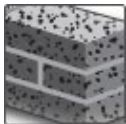
Anchor rod:
HAS-U
HAS-U-F
HAS-U-R
HAS-U-HCR
rods (M6-M16)

Sieve sleeves:
HIT-SC (12-22)

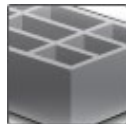
Benefits

- Chemical injection fastening for the most common types of base materials:
- Hollow and solid clay bricks, calcium silicate bricks, normal and light weight concrete blocks
- Two-component hybrid mortar
- Versatile and convenient handling with HDE dispenser
- Flexible setting depth and fastening thickness
- Small edge distance and anchor spacing
- Suitable for overhead fastenings

Base material



Solid brick



Hollow brick

Load conditions

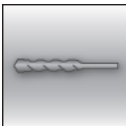


Static/
quasi-static



Fire
resistance

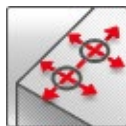
Installation conditions



Hammer
drill bit
(Hammer
mode and
rotary mode)



Variable
embedment
depth



Small edge
distance and
spacing

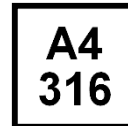
Other informations



European
Technical
Assessment



CE
conformity



Corrosion
resistance



High
corrosion
resistance



PROFIS
Engineering
design
software

Approvals / certificates

Description	Authority / Laboratory	No. / date of issue
European technical assessment	DIBt, Berlin	ETA-13/1036 / 2017-12-12
European technical assessment	DIBt, Berlin	ETA-19/0160 / 2019-04-29
Hilti Technical Data ^{a)}	Hilti	2019-05-20
Fire test report	MFPA, Leipzig	PB 3.2/14-179-1 / 2014-09-05

a) Hilti Technical Data is based on testing and assessment by Hilti following EAD 330076-00-0604, EOTA TR053 and TR054

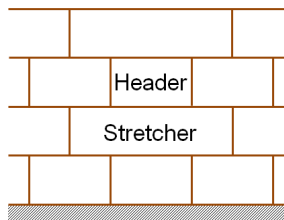
Recommended general notes

* The below clauses based on Hilti product qualifications are for references only. Selection of clauses by the engineer shall be based on the specific application needs. Please contact Hilti's technical team for further details.

- Anchor shall be two-component hybrid mortar.
- Anchors shall obtain the European Technical Assessment (ETA) report.
- For application in hollow bricks, anchor shall be installed with the insertion of sieve sleeve.
- For other bricks in solid or hollow masonry, not covered by the Hilti HIT-HY 270 ETA or this technical data manual, the characteristic resistance may be determined by on-site tension tests (pull-out tests or proof-load tests).

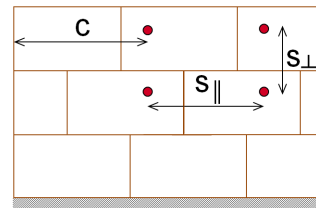
Anchor installation parameters

Brick position:



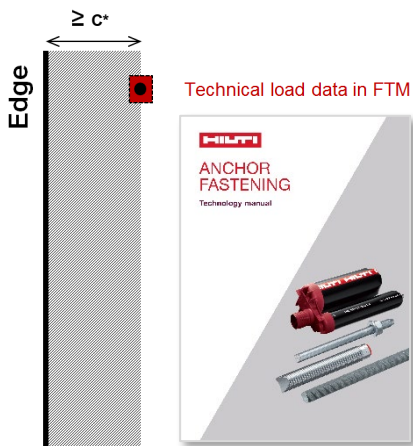
- **Header (H):** The longest dimension of the brick represents the width of the wall
- **Stretcher (S):** The longest dimension of the brick represents the length of the wall

Spacing and edge distance:

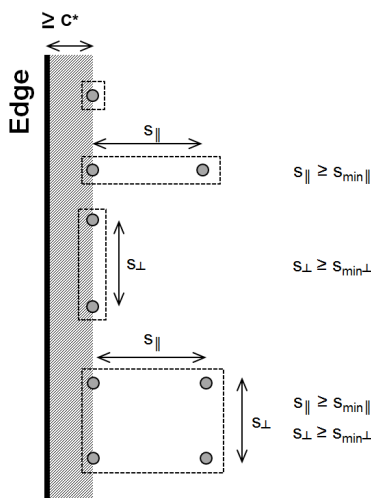


- c - Distance to the edge
- $s_{||}$ - Spacing parallel to the bed joint
- s_{\perp} - Spacing perpendicular to the bed joint

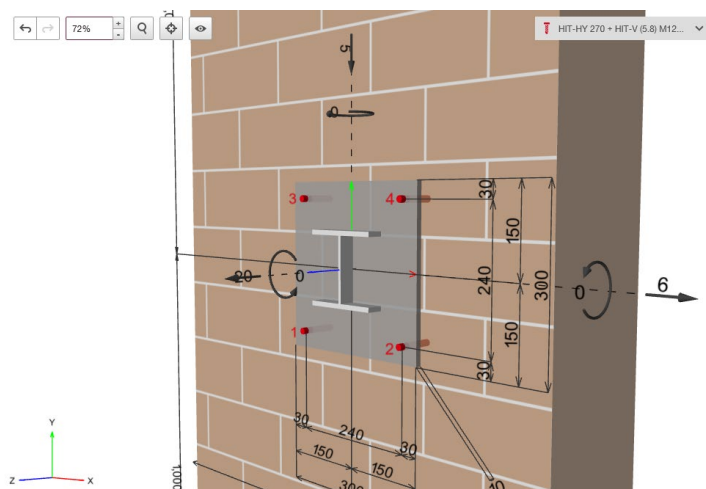
Allowed anchor positions:



- This FTM includes the load data for single anchors in masonry with a distance to edge equal to or greater than c^* .
- c^* is the distance from the anchor to the edge of the wall, such that the loading capacity of the anchor is not influenced by the edge.
- Minimum spacing between anchors = MAX ($3 \times h_{ef}$; size of brick in respective direction). This applies for a (conservative) manual design/calculation of a baseplate using the load tables in this manual.
- For an optimized design or cases not covered in this technical data, including anchor groups, please use PROFIS Engineering software or consult ETA-13/1036.



PROFIS Engineering software interface:



Anchor dimensions for HAS-U

Anchor size		M6	M8	M10	M12	M16
Embedment depth	with HIT-SC	Variable length from 50 to 160				
	without HIT-SC	Variable length from 50 to 300				

Design


- Anchorages are designed under the responsibility of an engineer experienced in anchorages and masonry work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings (e.g. position of the anchor relative to supports, etc.).
- Anchorages under static or quasi-static loading are designed in accordance with: EOTA TR054, Design method A

Basic loading data (for a single anchor)

The load tables provide the design resistance values for a single loaded anchor.

All data in this section applies to

- Edge distance $c \geq c^*$. For other applications, use Hilti PROFIS Engineering software.
- Correct anchor setting (see instruction for use, setting details)

Anchorages subject to:		Hilti HIT-HY 270 with HAS-U or HIT-IC	
		in solid bricks	in hollow bricks
Hole drilling		hammer mode	rotary mode
Use category: dry or wet structure		Category d/d - Installation and use in structures subject to dry , internal conditions, Category w/d - Installation in dry or wet substrate and use in structures subject to dry , internal conditions (except calcium silicate bricks), Category w/w - Installation and use in structures subject to dry or wet environmental conditions (except calcium silicate bricks).	
Installation direction	Masonry	horizontal	
Installation direction	Ceiling brick	overhead	
Temperature in the base material at installation		+5° C to +40° C	-5° C to +40° C (HIT-IC) 0° C to +40° C (HAS-U)
In-service temperature	Temperature range Ta:	-40 °C to +40 °C	(max. long term temperature +24 °C and max. short term temperature +40 °C)
	Temperature range Tb:	-40 °C to +80 °C	(max. long term temperature +50 °C and max. short term temperature +80 °C)

On-site tests



For other bricks in solid or hollow masonry, not covered by the Hilti HIT-HY 270 ETA or this technical data manual, the characteristic resistance may be determined by on-site tension tests (pull-out tests or proof-load tests), according to EOTA TR053.

For the evaluation of test results, the characteristic resistance may be obtained taking into account the β factor, which considers the different influences of the product.

Materials

Material quality

Part	Material
Threaded rod HAS-U 5.8 (F)	Strength class 5.8, A5 > 8% ductile Electroplated zinc coated $\geq 5 \mu\text{m}$; (F) Hot dip galvanized $\geq 45 \mu\text{m}$
Threaded rod HAS-U 8.8 (F)	Strength class 8.8, A5 > 8% ductile Electroplated zinc coated $\geq 5 \mu\text{m}$; (F) Hot dip galvanized $\geq 45 \mu\text{m}$
Threaded rod HAS-U-R	Stainless steel grade A4 A5 > 8% ductile strength class 70, 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362
Threaded rod HAS-U-HCR	High corrosion resistant steel, A5 > 8% ductile 1.4529, 1.4565
Washer	Electroplated zinc coated, hot dip galvanized
	Stainless steel 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362
	High corrosion resistant steel 1.4529, 1.4565 EN 10088
Nut	Strength class 8 steel galvanized $\geq 5 \mu\text{m}$, ; hot dipped galvanized $\geq 45 \mu\text{m}$
	Strength class 70, stainless steel grade A4, 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362
	Strength class 70, high corrosion resistant steel, 1.4529; 1.4565

Setting information

Installation temperature range:

-5°C to +40°C

Service temperature range

Hilti HIT-HY 270 injection mortar may be applied in the temperature ranges given below. An elevated base material temperature may lead to a reduction of the design bond resistance.

Temperature range	Base material temperature	Max. long term base material temperature	Max. short term base material temperature
Temperature range I	-40 °C to + 40 °C	+ 24 °C	+ 40 °C
Temperature range II	-40 °C to + 80 °C	+ 50 °C	+ 80 °C

Max short term base material temperature

Short-term elevated base material temperatures are those that occur over brief intervals, e.g. as a result of diurnal cycling.

Max long term base material temperature

Long-term elevated base material temperatures are roughly constant over significant periods of time.

Working time and curing time for hollow bricks

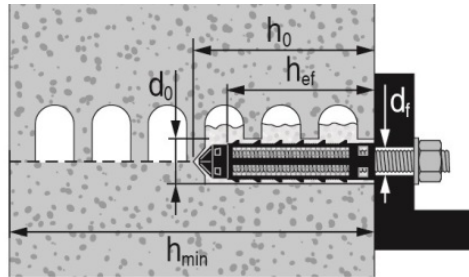
Temperature in the base material T	Maximum working time t_{work}	Minimum curing time $t_{cure}^{1)}$
0 °C to 4 °C	10 min	4 h
5 °C to 9 °C	10 min	2,5 h
10 °C to 19 °C	7 min	1,5 h
20 °C to 29 °C	4 min	30 min
30 °C to 40 °C	1 min	20 min

1) The curing time data are valid for dry base material only. In wet base material, the curing times must be doubled.

Installation parameters

Applications for hollow and solid bricks with sieve sleeves

For installing HAS-U and HIT-IC with embedments of 50 and 80 mm, a single sieve sleeve is used.



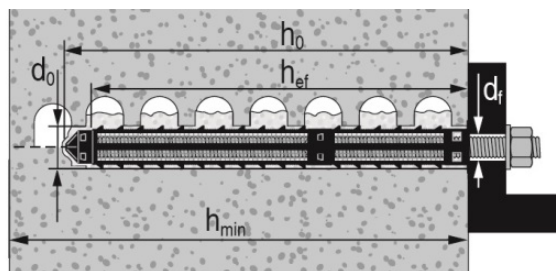
Hollow brick with threaded rod HAS-U or internally threaded sleeve HIT-IC and a single sieve sleeve HIT-SC

Installation parameters of HAS-U with one sieve sleeve HIT-SC in hollow and solid brick

HAS-U		M6	M8		M10		M12		M16	
with HIT-SC		12x85	16x50	16x85	16x50	16x85	18x50	18x85	22x50	22x85
Nominal diameter of drill bit	d_0 [mm]	12	16	16	16	16	18	18	22	22
Drill hole depth	h_0 [mm]	95	60	95	60	95	60	95	60	95
Effective embedment depth	h_{ef} [mm]	80	50	80	50	80	50	80	50	80
Maximum diameter of clearance hole in the fixture	d_f [mm]	7	9	9	12	12	14	14	18	18
Minimum wall thickness	h_{min} [mm]	115	80	115	80	115	80	115	80	115
Brush HIT-RB	- [-]	12	16	16	16	16	18	18	22	22
Number of strokes HDM	- [-]	5	4	6	4	6	4	8	6	10
Nr. of strokes HDE 500-A	- [-]	4	3	5	3	5	3	6	5	8
Max. torque moment for all brick types except "parpaing creux"	T_{max} [Nm]	0	3	3	4	4	6	6	8	8
Maximum torque moment for "parpaing creux"	T_{max} [Nm]	-	2	2	2	2	3	3	6	6

Applications for hollow and solid bricks with sieve sleeves (cont.)

For installing HAS-U and HIT-IC with embedments of 130 and 160 mm, two attached sleeves are used.



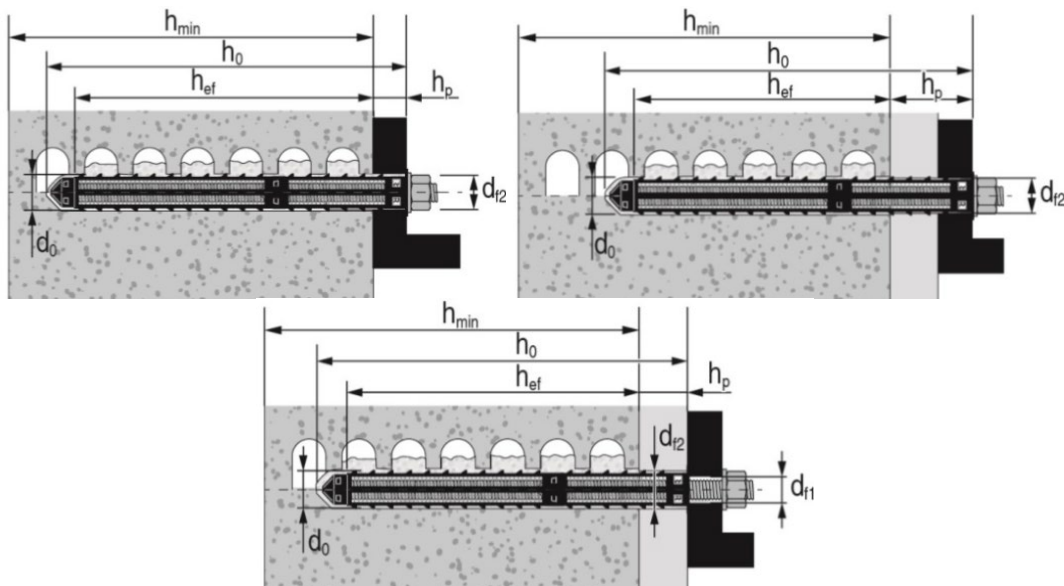
Hollow brick with threaded rod HAS-U and two sieve sleeves HIT-SC for deeper embedment depth

Installation parameters of HAS-U with two attached sleeves HIT-SC in hollow and solid brick

HAS-U		M8		M10		M12		M16	
with HIT-SC		16x50 + 16x85	16x85 + 16x85	16x50 + 16x85	16x85 + 16x85	18x50 + 18x85	18x85 + 18x85	22x50 + 22x85	22x85 + 22x85
Nominal diameter of drill bit	d_0 [mm]	16	16	16	16	18	18	22	22
Drill hole depth	h_0 [mm]	145	180	145	180	145	180	145	180
Effective embedment depth	h_{ef} [mm]	130	160	130	160	130	160	130	160
Maximum diameter of clearance hole in the fixture	d_f [mm]	9	9	12	12	14	14	18	18
Minimum wall thickness	h_{min} [mm]	195	230	195	230	195	230	195	230
Brush HIT-RB	- [-]	16	16	16	16	18	18	22	22
Number of strokes HDM	- [-]	4+6	6+6	4+6	6+6	4+8	8+8	6+10	10+10
Number of strokes HDE-500	- [-]	3+5	5+5	3+5	5+5	3+6	6+6	5+8	8+8
Maximum torque moment	T_{max} [Nm]	3	3	4	4	6	6	8	8

Applications for hollow and solid bricks with sieve sleeves (cont.)

For through fastenings with HAS-U, two attached sleeves are used.



Hollow and solid brick with threaded rod HAS-U with two sieve sleeves HIT-SC for setting through the fixture and/or through the non-loadbearing layer

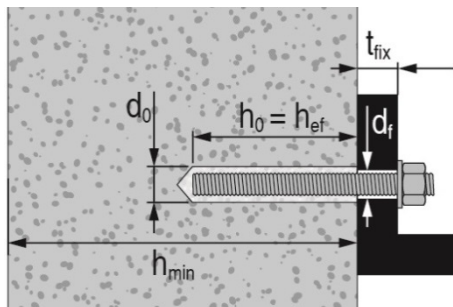
Installation parameters of HAS-U with two sieve sleeves through the fixture and/or through the non-loadbearing layer in hollow and solid bricks

HAS-U		M8		M10		M12		M16	
with HIT-SC		16x50 + 16x85	16x85 + 16x85	16x50 + 16x85	16x85 + 16x85	18x50 + 18x85	18x85 + 18x85	22x50 + 22x85	22x85 + 22x85
Nominal diameter of drill bit	d_0 [mm]	16	16	16	16	18	18	22	22
Drill hole depth	h_0 [mm]	145	180	145	180	145	180	145	180
Effective embedment depth	$h_{ef,min}$ [mm]	80	80	80	80	80	80	80	80
Max. thickness of non-loadbearing layer and fixture (through setting)	$h_{p,max}$ [mm]	50	80	50	80	50	80	50	80
Max. diameter of clearance hole in the fixture (pre-setting)	d_{f1} [mm]	9	9	12	12	14	14	18	18
Max. diameter of clearance hole in fixture (through setting)	d_{f2} [mm]	17	17	17	17	19	19	23	23

Minimum wall thickness	h_{min}	[mm]	$h_{ef}+65$	$h_{ef}+70$	$h_{ef}+65$	$h_{ef}+70$	$h_{ef}+65$	$h_{ef}+70$	$h_{ef}+65$	$h_{ef}+70$
Brush HIT-RB	-	[-]	16	16	16	16	18	18	22	22
Number of strokes HDM	-	[-]	4+6	6+6	4+6	6+6	4+8	8+8	6+10	10+10
Number of strokes HDE	-	[-]	3+5	5+5	3+5	5+5	5+8	8+8	5+8	8+8
Max. torque moment for all brick types except "parpaing creux"	T_{max}	[Nm]	3	3	4	4	6	6	8	8
Max. torque moment for "parpaing creux"	T_{max}	[Nm]	2	2	2	2	3	3	6	6

Applications for solid bricks without sieve sleeves.

Hilti recommends the anchoring in masonry always with sieve sleeve. Anchors can only be installed without sieve sleeves in solid bricks when it is guaranteed that it has not any hole or void.



Solid brick with threaded rod HAS-U

Installation parameters of HAS-U in solid bricks

Threaded rods and HAS-U		M8	M10	M12	M16	
Nominal diameter of drill bit	d_0	[mm]	10	12	14	18
Drill hole depth = Effective embedment depth	$h_0 = h_{ef}$	[mm]	50...300	50...300	50...300	50...300
Maximum diameter of clearance hole in the fixture	d_f	[mm]	9	12	14	18
Minimum wall thickness	h_{min}	[mm]	h_0+30	h_0+30	h_0+30	h_0+36
Brush HIT-RB	-	[-]	10	12	14	18
Maximum torque moment	T_{max}	[Nm]	5	8	10	10

Installation equipment

Anchor size	M6	M8	M10	M12	M16
Rotary hammer	TE2(A) – TE30(A)				
Other tools	compressed air gun or blow out pump, set of cleaning brushes, dispenser				

Drilling and cleaning parameters

HAS-U ^{a)}	HAS-U sieve sleeve	HIT-IC ^{a)}	HIT-IC + sieve sleeve	Hammer drill	Brush HIT-RB
				d_0 [mm]	size [mm]
-	-	-	-	8	8
M8	-	-	-	10	10
M10	-	-	-	12	12
M12	-	M8	-	14	14
-	M8	M10	M8	16	16
-	M10	-	-	16	16
M16	M12	M12	M10	18	18
-	M16	-	M12	22	22

a) Installation without the sieve sleeve HIT-SC can be used only in case of solid bricks.

Setting instructions

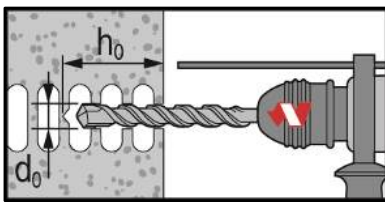
***For detailed information on installation see instruction for use given with the package of the product.**



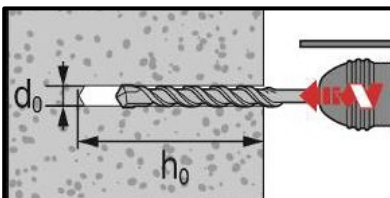
Safety regulations.

Review the Material Safety Data Sheet (MSDS) before use for proper and safe handling! Wear well-fitting protective goggles and protective gloves when working with Hilti HIT-HY 270.

Drilling

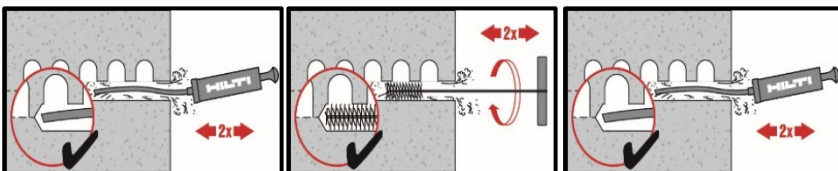


In hollow bricks: rotary mode



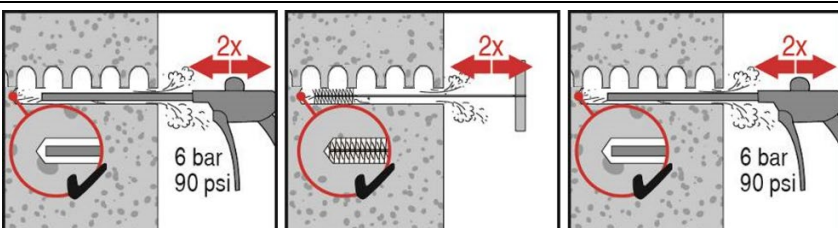
In solid bricks: hammer mode

Cleaning



Manual cleaning (MC)

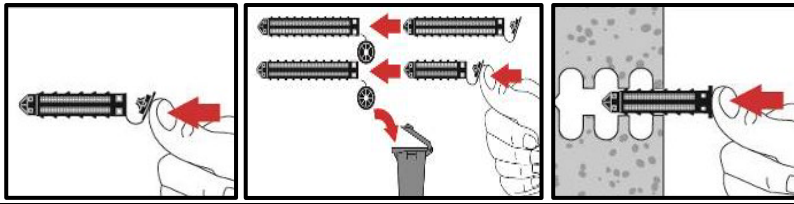
For drill hole diameter $d_0 \leq 18$ mm and drill hole depth $h_0 \leq 100$ mm



Compressed air cleaning (CAC)

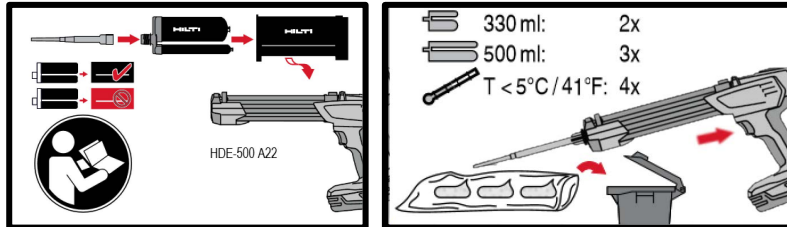
For drill hole depth $h_0 \leq 300$ mm

Injection preparation for hollow and solid bricks with sieve sleeve



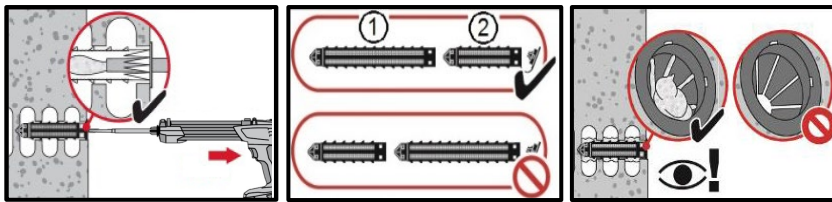
Close lid and insert sieve sleeve manually.

All applications

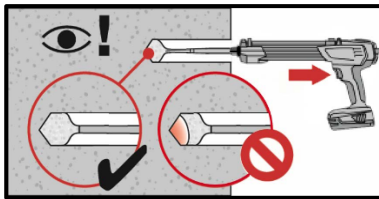


Injection system preparation.

Inject the adhesive without forming air voids

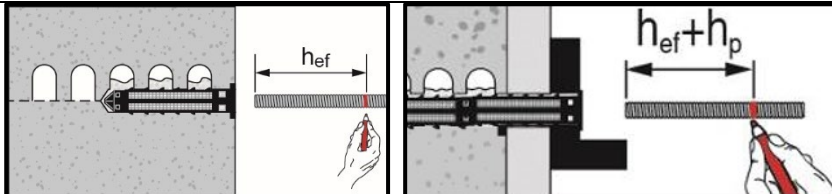


Injection method 1 for Installation with sieve sleeve HIT-SC. Use extension for installation with two sieve sleeves.

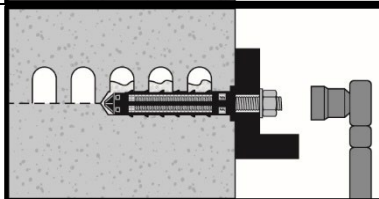


Injection method 2 for installation in solid bricks without sieve sleeve

Setting de element



Marking and setting element, to the required embedment depth, observing working time t_{work} .



Loading the anchor: After required curing time t_{cure} the anchor can be loaded. The applied installation torque shall not exceed the values T_{max} .

Confirmation

LEED

On 25 July 2014, Eurofins Product Testing A/S received a sample of an adhesive with the product name:

HIT-HY 270

supplied by

Hilti Entwicklungsgesellschaft GmbH

The sample was supplied as being representative of the manufactured product, and it has been tested as multipurpose construction adhesive in accordance with the relevant, ISO 11890-1, ASTM D2369 and EPA method 24 testing standards (See test report no. 392-2014-00149701rev1).

The test results of the tested adhesive indicate that the product qualifies for LEED 2009 specifications VOC content by complying with:

VOC content specifications in LEED EQ credit "Low-emitting products":

- the requirements of SCAQMD rule 1168 (2005)

6 October 2014



Maria Pelle
Chemist



Søren Ryom Villadsen
Analytical Service Manager

Attn. : To whom it may concern

Date : 26 September 2023
Ref. : 117/AC/DY/23

Subject : Country of Origin- Hilti HIT-HY 270 Adhesive Anchor

Dear Sir / Madam,

Enclosed please find the information of Hilti HIT-HY 270 Adhesive Anchor.

Brand Name : Hilti

Model Name : Hilti HIT-HY 270 Adhesive Anchor

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Manufacturer Contact Person : Dennis Yeung

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Supplier Contact Person : Dennis Yeung (+852 9723 4621)

Country of Origin : Germany

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,



Dennis Yeung
Head of Product Leadership Strategy, F&P

Attn. : To whom it may concern

Date : 18 October 2023
Ref. : 163/AN/RV/23

Subject : Country of Origin - Anchor Rod Portfolio

Dear Sir / Madam,

Enclosed please find the information of Hilti anchor rod portfolio.

Brand Name : Hilti

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Country of Origin : *(Attached)*

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,



Dennis Yeung
Head of Product Leadership Strategy, F&P

Item number	Model name	Country of Origin
2223936	HAS-U 5.8 M6x75	China
2223704	HAS-U 5.8 M6x105	China
2223852	HAS-U 5.8 M8x80	China
2223853	HAS-U 5.8 M8x110	China
2223854	HAS-U 5.8 M8x150	China
2223705	HAS-U 5.8 M10x95	China
2223706	HAS-U 5.8 M10x115	China
2223707	HAS-U 5.8 M10x130	China
2223709	HAS-U 5.8 M10x170	China
2223820	HAS-U 5.8 M10x190	China
2223821	HAS-U 5.8 M12x110	China
2223822	HAS-U 5.8 M12x120	China
2223823	HAS-U 5.8 M12x160	China
2223825	HAS-U 5.8 M12x180	China
2223826	HAS-U 5.8 M12x200	China
2223827	HAS-U 5.8 M12x220	China
2223867	HAS-U 5.8 M12x260	China
2223868	HAS-U 5.8 M12x300	China
2223828	HAS-U 5.8 M16x150	China
2223829	HAS-U 5.8 M16x165	China
2223830	HAS-U 5.8 M16x190	China
2223869	HAS-U 5.8 M16x220	China
2223832	HAS-U 5.8 M16x260	China
2223870	HAS-U 5.8 M16x300	China
2223871	HAS-U 5.8 M16x350	China
2223872	HAS-U 5.8 M16x500	China
2223873	HAS-U 5.8 M20x180	China
2223874	HAS-U 5.8 M20x240	China
2223876	HAS-U 5.8 M20x260	China
2223877	HAS-U 5.8 M20x300	China
2223878	HAS-U 5.8 M20x350	China
2223879	HAS-U 5.8 M20x400	China
2223880	HAS-U 5.8 M20x480	China
2223881	HAS-U 5.8 M24x300	China
2223882	HAS-U 5.8 M24x450	China
2223856	HAS-U 5.8 HDG M8x80	China
2223857	HAS-U 5.8 HDG M8x110	China
2223858	HAS-U 5.8 HDG M8x150	China
2223859	HAS-U 5.8 HDG M10x95	China
2223860	HAS-U 5.8 HDG M10x115	China
2223861	HAS-U 5.8 HDG M10x130	China
2223862	HAS-U 5.8 HDG M10x170	China
2223863	HAS-U 5.8 HDG M10x190	China
2223937	HAS-U 5.8 HDG M12x110	China
2223938	HAS-U 5.8 HDG M12x120	China
2223939	HAS-U 5.8 HDG M12x160	China
2223940	HAS-U 5.8 HDG M12x180	China

2223941	HAS-U 5.8 HDG M12x200	China
2223942	HAS-U 5.8 HDG M12x220	China
2223895	HAS-U 5.8 HDG M12x260	China
2223896	HAS-U 5.8 HDG M12x300	China
2223943	HAS-U 5.8 HDG M16x150	China
2223944	HAS-U 5.8 HDG M16x165	China
2223945	HAS-U 5.8 HDG M16x190	China
2223946	HAS-U 5.8 HDG M16x220	China
2223897	HAS-U 5.8 HDG M16x260	China
2223898	HAS-U 5.8 HDG M16x300	China
2223899	HAS-U 5.8 HDG M16x350	China
2223900	HAS-U 5.8 HDG M16x500	China
2223901	HAS-U 5.8 HDG M20x180	China
2223902	HAS-U 5.8 HDG M20x240	China
2223903	HAS-U 5.8 HDG M20x260	China
2223904	HAS-U 5.8 HDG M20x300	China
2223905	HAS-U 5.8 HDG M20x350	China
2223906	HAS-U 5.8 HDG M20x400	China
2223907	HAS-U 5.8 HDG M20x480	China
2223908	HAS-U 5.8 HDG M24x300	China
2223909	HAS-U 5.8 HDG M24x450	China
2223855	HAS-U 8.8 M8x150	China
2223833	HAS-U 8.8 M10x190	China
2223834	HAS-U 8.8 M12x220	China
2223883	HAS-U 8.8 M12x300	China
2223835	HAS-U 8.8 M16x190	China
2223884	HAS-U 8.8 M16x300	China
2223885	HAS-U 8.8 M16x380	China
2223886	HAS-U 8.8 M20x180	China
2223887	HAS-U 8.8 M20x260	China
2223888	HAS-U 8.8 M20x400	China
2223889	HAS-U 8.8 M24x300	China
2223890	HAS-U 8.8 M27x340	China
2223891	HAS-U 8.8 M30x380	China
2223892	HAS-U 8.8 M33x420	China
2223893	HAS-U 8.8 M36x460	China
2223894	HAS-U 8.8 M39x510	China
2223947	HAS-U 8.8 HDG M8x150	China
2223948	HAS-U 8.8 HDG M10x190	China
2223949	HAS-U 8.8 HDG M12x220	China
2223910	HAS-U 8.8 HDG M12x300	China
2223703	HAS-U 8.8 HDG M16x190	China
2223911	HAS-U 8.8 HDG M16x300	China
2223912	HAS-U 8.8 HDG M16x380	China
2223913	HAS-U 8.8 HDG M20x180	China
2223914	HAS-U 8.8 HDG M20x260	China
2223915	HAS-U 8.8 HDG M20x400	China
2223916	HAS-U 8.8 HDG M24x300	China
2223917	HAS-U 8.8 HDG M27x340	China

2223918	HAS-U 8.8 HDG M30x380	China
2223864	HAS-U A4 M8x80	China
2223865	HAS-U A4 M8x110	China
2223866	HAS-U A4 M8x150	China
2223836	HAS-U A4 M10x95	China
2223837	HAS-U A4 M10x115	China
2223838	HAS-U A4 M10x130	China
2223839	HAS-U A4 M10x170	China
2223840	HAS-U A4 M10x190	China
2223841	HAS-U A4 M10x220	China
2223842	HAS-U A4 M12x110	China
2223843	HAS-U A4 M12x120	China
2223844	HAS-U A4 M12x160	China
2223845	HAS-U A4 M12x180	China
2223846	HAS-U A4 M12x200	China
2223847	HAS-U A4 M12x220	China
2223919	HAS-U A4 M12x260	China
2223920	HAS-U A4 M12x300	China
2223848	HAS-U A4 M16x150	China
2223849	HAS-U A4 M16x165	China
2223850	HAS-U A4 M16x190	China
2223851	HAS-U A4 M16x220	China
2223921	HAS-U A4 M16x260	Denmark
2223922	HAS-U A4 M16x300	China
2223923	HAS-U A4 M16x350	China
2223924	HAS-U A4 M16x380	China
2223925	HAS-U A4 M20x180	China
2223926	HAS-U A4 M20x240	China
2223927	HAS-U A4 M20x260	China
2223928	HAS-U A4 M20x300	China
2223929	HAS-U A4 M20x350	China
2223930	HAS-U A4 M20x400	China
2223931	HAS-U A4 M20x480	China
2223932	HAS-U A4 M24x300	China
2223933	HAS-U A4 M24x450	China
2223934	HAS-U A4 M27x340	China
2223935	HAS-U A4 M30x380	China
258015	HIS-N M8x90	China
258016	HIS-N M10x110	China
258017	HIS-N M12x125	China
258018	HIS-N M16x170	China
258019	HIS-N M20x205	China
258024	HIS-RN M8x90 A4	China
258025	HIS-RN M10x110 A4	China
258026	HIS-RN M12x125 A4	China
258027	HIS-RN M16x170 A4	China
258028	HIS-RN M20x205 A4	China
2018364	HIT-Z M8x80	Liechtenstein
2018365	HIT-Z M8x100	Liechtenstein

2018366	HIT-Z M8x120	Liechtenstein
2018367	HIT-Z M10x95	Liechtenstein
2018369	HIT-Z M10x135	Liechtenstein
2018410	HIT-Z M10x160	Liechtenstein
2018411	HIT-Z M12x105	Liechtenstein
2018412	HIT-Z M12x140	Liechtenstein
2018413	HIT-Z M12x155	Liechtenstein
2018415	HIT-Z M12x196	Liechtenstein
2018416	HIT-Z M16x155	Liechtenstein
2018418	HIT-Z M16x205	Liechtenstein
2018419	HIT-Z M16x240	Liechtenstein
2018420	HIT-Z M20x215	Liechtenstein
2018421	HIT-Z M20x250	Liechtenstein
2018422	HIT-Z-R M8x80	Liechtenstein
2018423	HIT-Z-R M8x100	Liechtenstein
2018424	HIT-Z-R M8x120	Liechtenstein
2018425	HIT-Z-R M10x95	Liechtenstein
2018426	HIT-Z-R M10x115	Liechtenstein
2018427	HIT-Z-R M10x135	Liechtenstein
2018428	HIT-Z-R M10x160	Liechtenstein
2018429	HIT-Z-R M12x105	Liechtenstein
2018430	HIT-Z-R M12x140	Liechtenstein
2018431	HIT-Z-R M12x155	Liechtenstein
2018433	HIT-Z-R M12x196	Liechtenstein
2018434	HIT-Z-R M16x155	Liechtenstein
2018435	HIT-Z-R M16x175	Liechtenstein
2018436	HIT-Z-R M16x205	Liechtenstein
2018437	HIT-Z-R M16x240	Liechtenstein
2018438	HIT-Z-R M20x215	Liechtenstein
2018439	HIT-Z-R M20x250	Liechtenstein
375979	HIT-SC 12x50	Denmark
375981	HIT-SC 16x50	Denmark
375982	HIT-SC 16x85	Denmark
360485	HIT-SC 18x50	Denmark
360486	HIT-SC 18x85	Denmark



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D July 8, 2019

Confirmation of performance equivalence for replacing HILTI HAS(-E) anchor rod with HILTI HAS-U

To whom it may concern,

Hilti has launched HAS-U anchor rods to replace both HAS and HAS-E to better serve the customer needs and simplify the product portfolio. HAS-U anchor rod was tested according to European Assessment Document: EAD 330499 to take ETA approval and fully complies with the ISO 898 standard.

HAS-U includes the chiseling tip like HAS (-E) rods which makes it suitable for Hilti HVU2 capsule anchor system.

HAS-U has hex head (like HAS rod) is designed to provide an easy installation to the user. Hex head should not be included in the anchor length therefore it is strongly recommended to take only threaded part into consideration.

HAS-U shows the same performance with HAS (-E) for post-installed anchor applications in concrete as long as same embedment depth and same anchor plate width remains. **HAS-U's embedment depth must comply with design specification parameters.**

HAS-U has the same steel strength with the other anchor rods based on 5.8 and 8.8 steel grades. HAS-U (-R, -HDG)'s corrosion resistance is the same with HAS(-E) (-R, -HDG)'s.

The installation procedure does not need to be changed with the replacement of HAS-U. ETA document of HAS-U shows the same installation parameters with HAS(-E).

Profis Engineering will be updated with HAS-U and you will be able to perform necessary calculations and explore all the potential applications for the new anchor rod.

In case of questions, please do not hesitate to contact one of our technical experts or sales representatives.

Yours sincerely,


Andrea Copponi

Global Product Manager
BU Anchors, Schaan


Emrecan Turkes

Global Technical Marketing Manager
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D July 8, 2019

Confirmation of performance equivalence for replacing HILTI HIT-V anchor rod with HILTI HAS-U

To whom it may concern,

Hilti has launched HAS-U anchor rods to replace HIT-V; in order to better serve the customer needs and simplify the product portfolio. HAS-U anchor rod was tested according to European Assessment Document: EAD 330499 to take ETA approval and fully complies with ISO standard.

HAS-U includes the chiseling tip like HAS (-E) rods which makes it also suitable for Hilti HVU2 capsule anchor system. Both Hilti internal tests and European Technical Assessment shows that this chiseling tip has no effect on the performance when HAS-U is used together with injection system, like RE500V3, HY200 or HY170 etc. HAS-U has the same steel strength with the other anchor rods based on 5.8 and 8.8 steel grades.

HAS-U has hex head (like HAS rod) is designed to provide an easy installation to the user with HVU2 capsules. Hex head should not be included in the anchor length therefore it is strongly recommended to take only threaded part into consideration.

HAS-U shows the same performance with HIT-V for post-installed anchor applications in masonry and concrete as long as same embedment depth and same anchor plate width remains. **HAS-U's embedment depth must comply with design specification parameters.**

HAS-U (-R, -HDG)'s corrosion resistance is the same with HIT-V (-R, -HDG)'s.

The installation procedure does not need to be changed with the replacement of HAS-U. ETA document of HAS-U shows the same installation parameters with HIT-V.

Profis Engineering will be updated with HAS-U in September 2019 and you will be able to perform necessary calculations and explore all the potential applications for the new anchor rod.

In case of questions, please do not hesitate to contact one of our technical experts or sales representatives.

Yours sincerely,


Andrea Copponi
Global Product Manager
BU Anchors, Schaan


Emre Can Turkes
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HIT-HY 270

Safety information for 2-Component-products

Date of issue: 07/12/2018

Revision date: 07/12/2018

Supersedes: 23/11/2015

Version: 2.2

SECTION 1: Kit identification

1.1 Product identifier

Trade name

HIT-HY 270



Product code

BU Anchor

1.2 Details of the supplier of the Safety information for 2-Component-products

Hilti (Hong Kong) Ltd.
701-704, 7/F, Tower A, Manulife Financial Centre
223 Wai Yip Street, Kwun Tong
Kowloon - Hong Kong
T +852 27734 700
hksales@hilti.com

SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

A SDS for each of these components is included. Please do not separate any component SDS from this cover page

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

SECTION 3:

Classification of the Product

Classification according to the United Nations GHS (Rev. 4, 2011)

Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Skin Sens. 1	H317
Repr. 1B	H360
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Label elements

Labelling according to the United Nations GHS (Rev. 4, 2011)

Hazard pictograms (GHS UN)



GHS07

GHS08

GHS09

Signal word (GHS UN)

Danger

Hazardous ingredients

methacrylates, dibenzoyl peroxide, boric acid

Hazard statements (GHS UN)

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H360 - May damage fertility or the unborn child.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS UN)

P280 - Wear eye protection, protective clothing, protective gloves.

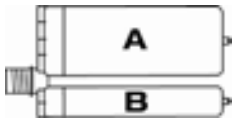
HIT-HY 270

Safety information for 2-Component-products

P262 - Do not get in eyes, on skin, or on clothing.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P302+P352 - IF ON SKIN: Wash with plenty of water.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

2-Component-foilpack, contains:
 Component A: Urethane methacrylate resin, inorganic filler
 Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	Classification according to the United Nations GHS
HIT-HY 270, B		1	pcs	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
HIT-HY 270, A		1	pcs	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

SECTION 4: General advice

General advice For professional users only

SECTION 5: Safe handling advice

General measures	Spilled material may present a slipping hazard
Environmental precautions	Prevent entry to sewers and public waters Notify authorities if liquid enters sewers or public waters
Storage conditions	Keep cool. Protect from sunlight.
Precautions for safe handling	Wear personal protective equipment Avoid contact with skin and eyes Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work Provide good ventilation in process area to prevent formation of vapour
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation Mechanically recover the product Store away from other materials.
For containment	Collect spillage.
Incompatible materials	Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

SECTION 6: First aid measures

First-aid measures after eye contact	Rinse immediately with plenty of water Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists
First-aid measures after ingestion	Rinse mouth Drink plenty of water Get medical advice/attention.

HIT-HY 270

Safety information for 2-Component-products

First-aid measures after inhalation	Do not induce vomiting Obtain emergency medical attention Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing Allow the victim to rest
First-aid measures after skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects after eye contact	May cause severe irritation
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

SECTION 7: Fire fighting measures

Firefighting instructions	Use water spray or fog for cooling exposed containers Exercise caution when fighting any chemical fire Prevent fire fighting water from entering the environment
Protection during firefighting	Self-contained breathing apparatus Do not enter fire area without proper protective equipment, including respiratory protection
Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide Carbon monoxide

SECTION 8: Other information

No data available

HIT-HY 270, A

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Date of issue: 17/12/2018

Version: 2.2

Revision date: 17/12/2018

Supersedes: 21/04/2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Product name	HIT-HY 270, A
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
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1.3. Details of the supplier of the safety data sheet

Supplier

Hilti (Hong Kong) Ltd.
701-704, 7/F, Tower A, Manulife Financial Centre
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Department issuing data specification sheet

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anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +852 27734 700
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS (Rev. 4, 2011)

Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Skin Sens. 1	H317
Repr. 1B	H360
Aquatic Acute 3	H402
Aquatic Chronic 3	H412

Full text of H statements : see section 16

2.2. Label elements

Labelling according to the United Nations GHS (Rev. 4, 2011)

Hazard pictograms (GHS UN)



GHS07

GHS08

Signal word (GHS UN)

Danger

Hazardous ingredients

4-tert-butylpyrocatechol; 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol; boric acid

Hazard statements (GHS UN)

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H360 - May damage fertility or the unborn child.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS UN)

P280 - Wear eye protection, protective clothing, protective gloves.
P262 - Do not get in eyes, on skin, or on clothing.

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according to the United Nations GHS (Rev. 4, 2011)

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 - If skin irritation or rash occurs: Get medical advice, medical attention.
P337+P313 - If eye irritation persists: Get medical advice, medical attention.
P302+P352 - IF ON SKIN: Wash with plenty of water.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	(CAS-No.) 27813-02-1	10 - 25	Flammable liquids Not classified Acute toxicity (oral) Not classified Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment - Acute Hazard Not classified Hazardous to the aquatic environment - Chronic Hazard Not classified
Bisphenol-A-diethoxy-methacrylate	(CAS-No.) 24448-20-2	5 - 10	Flammable liquids Not classified Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319
Tricyclodecane dimethanol dimethacrylate	(CAS-No.) 43048-08-4	2,5 - 5	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation, H335
1,1,1-Trimethylolpropane trimethacrylate	(CAS-No.) 3290-92-4	2,5 - 5	Flammable liquids Not classified Acute toxicity (oral) Not classified Hazardous to the aquatic environment — Acute Hazard, Category 2, H401 Hazardous to the aquatic environment — Chronic Hazard, Category 2, H411
1,1'-(p-tolylimino)dipropan-2-ol	(CAS-No.) 38668-48-3	0,1 - 1	Acute toxicity (oral), Category 2, H300 Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment — Acute Hazard, Category 3, H402 Hazardous to the aquatic environment — Chronic Hazard, Category 3, H412
boric acid	(CAS-No.) 10043-35-3	0,1 - 1	Acute toxicity (oral), Category 5, H303 Reproductive toxicity, Category 1B, H360 Hazardous to the aquatic environment — Acute Hazard, Category 3, H402
4-tert-butylpyrocatechol	(CAS-No.) 98-29-3	0,1 - 1	Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 4, H312 Skin corrosion/irritation, Category 1B, H314 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 Hazardous to the aquatic environment — Chronic Hazard, Category 2, H411

Full text of H-statements: see section 16

HIT-HY 270, A

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/.... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	Rinse mouth. Drink plenty of water. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. Dry powder. Foam. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures Ventilate area.

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Handling temperature	5 - 40 °C
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.
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8.2. Appropriate engineering controls

Environmental exposure controls	Avoid release to the environment.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection	Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.
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Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12		EN 374

HIT-HY 270, A

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Eye protection

Wear security glasses which protect from splashes

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection

Wear suitable protective clothing



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	light brown.
Odour	characteristic.
Odour threshold	Not determined
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	> 100 °C DIN EN ISO 1523
Auto-ignition temperature	Not self-igniting
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.66 g/cm ³ DIN 51757
Solubility	Water: Not miscible
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	80 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

HIT-HY 270, A

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) Not classified

Acute toxicity (dermal) Not classified

Acute toxicity (inhalation) Not classified

HIT-HY 270, A	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	> 20 mg/l/4h
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg
4-tert-butylpyrocatechol (98-29-3)	
LD50 oral rat	815 mg/kg bodyweight (Rat; Lethal; ECHA)
LD50 oral	2820 mg/kg
LD50 dermal rat	1331 mg/kg bodyweight (Rat;Lethal; ECHA)
LD50 dermal	630 mg/kg
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LD50 oral rat	> 5000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >=2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit	>= 5000 mg/kg bodyweight (Rabbit; Experimental value)
1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 3000 mg/kg
boric acid (10043-35-3)	
LD50 oral rat	2660 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >2600 mg/kg bodyweight; Rat; Experimental value)
LD50 oral	2660 mg/kg
LD50 dermal rabbit	> 2000 mg/kg Rabbit; Experimental value; FIFRA (40 CFR)
LC50 inhalation rat (mg/l)	> 2.12 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male/female, Experimental value, Inhalation (dust))

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye irritation.

HIT-HY 270, A

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

HIT-HY 270, A	
Viscosity, kinematic	48192.771 mm ² /s

Potential adverse human health effects and symptoms Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	Harmful to aquatic life.
Classification procedure (Acute aquatic toxicity)	Calculation method
Chronic aquatic toxicity	Harmful to aquatic life with long lasting effects.
Classification procedure (Chronic aquatic toxicity)	Calculation method

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
LC50 fish 1	≈ 17 mg/l
LC50 other aquatic organisms 1	245 mg/l
EC50 Daphnia 1	28.8 mg/l
NOEC (acute)	57.8 mg/l

4-tert-butylpyrocatechol (98-29-3)	
LC50 fish 1	0.12 mg/l (96 h, Danio rerio, Lethal, ECHA)
EC50 Daphnia 1	> µg/l
ErC50 (algae)	10.17 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
LC50 fish 1	493 mg/l (48 h; Leuciscus idus; GLP)
EC50 Daphnia 1	> 143 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Threshold limit algae 2	> 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)

1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
LC50 fish 1	2 mg/l
ErC50 (algae)	3.88 mg/l
NOEC chronic fish	0.138 mg/l
NOEC chronic crustacea	0.177 mg/l

boric acid (10043-35-3)	
LC50 fish 1	447 mg/l
EC50 Daphnia 1	658 - 875 mg/l (48 h; Daphnia magna)
LC50 fish 2	79 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Hard water)
EC50 Daphnia 2	19.7 mg/l (336 h; Daphnia magna)
ErC50 (algae)	290 mg/l
NOEC chronic fish	2.1 mg/l

12.2. Persistence and degradability

HIT-HY 270, A	
Persistence and degradability	Not established.

4-tert-butylpyrocatechol (98-29-3)	
Persistence and degradability	Not readily biodegradable in water. Inherently biodegradable.
ThOD	2.4 g O ₂ /g substance

HIT-HY 270, A

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

HIT-HY 270, A	
Bioaccumulative potential	Not established.

1,1'-(p-tolylimino)diprop-2-ol (38668-48-3)	
BCF fish 1	≈
Log Kow	2.1

4-tert-butylpyrocatechol (98-29-3)	
Log Pow	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
BCF fish 1	<= 100
BCF fish 2	3.2 Quantitative structure-activity relationship (QSAR)
Log Pow	0.97 (OECD 102 method)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).

1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
BCF fish 2	366 l/kg
Log Pow	3.53
Log Kow	4.39

boric acid (10043-35-3)	
BCF fish 2	< 0.1 (60 days; Oncorhynchus tshawytscha; Fresh weight)
Log Pow	-1.09 (Experimental value; EU Method A.8: Partition Coefficient; 22 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).

12.4. Mobility in soil

1,1'-(p-tolylimino)diprop-2-ol (38668-48-3)	
Log Kow	See section 12.1 on ecotoxicology

4-tert-butylpyrocatechol (98-29-3)	
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Highly mobile in soil.

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Log Pow	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for adsorption in soil.

1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
Log Pow	See section 12.1 on ecotoxicology
Log Kow	See section 12.1 on ecotoxicology

boric acid (10043-35-3)	
Log Pow	See section 12.1 on ecotoxicology
Ecology - soil	No (test)data on mobility of the substance available. May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available
Other information	Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.



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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Additional information	Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

- Air transport

No data available

- Rail transport

Carriage prohibited (RID) No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No additional information available

SECTION 16: Other information

SDS Major/Minor	None
Date of issue	17/12/2018
Revision date	17/12/2018

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according to the United Nations GHS (Rev. 4, 2011)

Supersedes 21/04/2015

Other information None.

Full text of H-statements:

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Date of issue: 17/12/2018

Version: 2.3

Revision date: 17/12/2018

Supersedes: 05/07/2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Product name	HIT-HY 270, B
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
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1.3. Details of the supplier of the safety data sheet

Supplier

Hilti (Hong Kong) Ltd.
701-704, 7/F, Tower A, Manulife Financial Centre
223 Wai Yip Street, Kwun Tong
Kowloon - Hong Kong
T +852 27734 700
hksales@hilti.com

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering - Deutschland
T +49 8191 906310 - F +49 8191 90176310
anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +852 27734 700
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS (Rev. 4, 2011)

Skin Sens. 1	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410
Full text of H statements : see section 16	

2.2. Label elements

Labelling according to the United Nations GHS (Rev. 4, 2011)

Hazard pictograms (GHS UN)



GHS07

GHS09

Signal word (GHS UN)

Warning

Hazardous ingredients

dibenzoyl peroxide

Hazard statements (GHS UN)

H317 - May cause an allergic skin reaction.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS UN)

P280 - Wear eye protection, protective clothing, protective gloves.
P262 - Do not get in eyes, on skin, or on clothing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 - If skin irritation or rash occurs: Get medical advice, medical attention.
P337+P313 - If eye irritation persists: Get medical advice, medical attention.
P302+P352 - IF ON SKIN: Wash with plenty of water.

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
dibenzoyl peroxide	(CAS-No.) 94-36-0	5 - 10	Organic Peroxides, Type B, H241 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 (M=10) Hazardous to the aquatic environment — Chronic Hazard, Category 1, H410 (M=10)

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	Wash contaminated clothing before reuse. Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	Rinse mouth. Drink plenty of water. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	May cause severe irritation.
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. Dry powder. Foam. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Spilled material may present a slipping hazard.
6.1.1. For non-emergency personnel	
Emergency procedures	Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 - 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Additional information

The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.2. Appropriate engineering controls

Environmental exposure controls Avoid release to the environment.
 Consumer exposure controls Avoid contact during pregnancy/while nursing.
 Other information Do not eat, drink or smoke during use.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12		EN 374

Eye protection Wear security glasses which protect from splashes

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection Wear suitable protective clothing



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid
 Appearance Thixotropic paste.
 Colour white.
 Odour characteristic.
 Odour threshold Not determined
 pH ≈ 6
 Relative evaporation rate (butylacetate=1) No data available
 Melting point No data available
 Freezing point No data available
 Boiling point No data available
 Flash point No data available
 Auto-ignition temperature Not self-igniting
 Decomposition temperature No data available
 Flammability (solid, gas) Non flammable.
 Vapour pressure No data available

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according to the United Nations GHS (Rev. 4, 2011)

Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.7 g/cm ³ DIN 51757
Solubility	Water: Not miscible
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	90 Pa·s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

SADT 65 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

oxydipropanol (25265-71-8)	
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male/female, Experimental value, Oral)
LD50 dermal rabbit	> 5010 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male/female, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	2.34 mg/l (Equivalent or similar to OECD 403, Rat, Male/female, Experimental value, Inhalation)
Skin corrosion/irritation	Not classified pH: ≈ 6
Serious eye damage/irritation	Not classified pH: ≈ 6

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

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Viscosity, kinematic	52941.176 mm ² /s

Potential adverse human health effects and symptoms Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	Very toxic to aquatic life.
Classification procedure (Acute aquatic toxicity)	Calculation method
Chronic aquatic toxicity	Very toxic to aquatic life with long lasting effects.
Classification procedure (Chronic aquatic toxicity)	Calculation method

dibenzoyl peroxide (94-36-0)	
EC50 Daphnia 1	0.11 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LC50 fish 2	0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA)
NOEC (acute)	0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA)
NOEC chronic fish	< 0.001

oxydipropanol (25265-71-8)	
LC50 fish 1	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value)
LC50 other aquatic organisms 1	3181 mg/l (Other, 48 h, Xenopus laevis, Fresh water, Experimental value)
EC50 Daphnia 1	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

HIT-HY 270, B	
Persistence and degradability	Not established.

dibenzoyl peroxide (94-36-0)	
Persistence and degradability	Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.

oxydipropanol (25265-71-8)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

HIT-HY 270, B	
Bioaccumulative potential	Not established.

dibenzoyl peroxide (94-36-0)	
Log Pow	3.71
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

oxydipropanol (25265-71-8)	
Log Pow	-0.462 (Test data, Equivalent or similar to OECD 107, 21.7 °C)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

dibenzoyl peroxide (94-36-0)	
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Adsorbs into the soil.
oxydipropanol (25265-71-8)	
Surface tension	71.4 mN/m (22 °C, 1.01 g/l)
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available
Other information	Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	Disposal must be done according to official regulations.
Waste treatment methods	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Additional information	Clean up even minor leaks or spills if possible without unnecessary risk.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)			
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

14.6. Special precautions for user

- Overland transport

Special provisions (ADR)	375
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Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

- Transport by sea

No data available

- Air transport

Special provisions (IATA) A197

- Rail transport

Carriage prohibited (RID) No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No additional information available

SECTION 16: Other information

SDS Major/Minor None
Date of issue 17/12/2018
Revision date 17/12/2018
Supersedes 05/07/2016

Indication of changes:

Section	Changed item	Change	Comments
2.1	Classification (GHS UN)	Added	
2.2	Hazard statements (GHS UN)	Modified	
3	Composition/information on ingredients	Modified	

Other information None.

Full text of H-statements:

H241	Heating may cause a fire or explosion.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



Hilti HIT-HY 270 Adhesive Anchor Job Reference

Year	Project Name	Customer Name	Project type
2020	Refurbishment - Industrial - 26-28 Au Pui Wan Street, Fo	JOINTEX ENGINEERING LIMITED	Industrial
2020	3 A KUNG NGAM VILLAGE RD	CHEVALIER (ALUMINIUM ENGINEERING)	Health
2020	TIN SHUI WAI AREA 112 LOT 33	LEUNG PUI FORM MOULD &	Residential
2020	OCEAN PARK- FULLERTON HOTEL	WAH TUNG FACADE COMPANY LIMITED	Hospitality
2020	New - Transport - Hung Hom	H. H. ROBERTSON LIMITED	Transport
2020	SCL 1124 ADMIRALTY SCL RELATED WORK	KAIER NEW MATERIALS HONG KONG	Transport
2020	CHUN YAT ST & CHUN CHEONG ST AMC	RICH IN ENGINEERING LIMITED	Office
2020	TAI WAI STATION NW RES	WAH TUNG FACADE COMPANY LIMITED	Residential
2020	HKIA 3508 TERMINAL 2	PROGRAM CONTRACTORS LIMITED	Transport
2020	SWIMMING POOL - TIN SHUI WAI AREA 107	UNISTRESS BUILDING CONSTRUCTION	Sport & Recreation
2021	HKIA 3508 TERMINAL 2	EASY SMART ENGINEERING LIMITED	Transport
2021	OCEAN PARK- FULLERTON HOTEL	WAH TUNG FACADE COMPANY LIMITED	Hospitality
2021	CHUN YAT ST & CHUN CHEONG ST AMC	INNOTEC ENGINEERING LIMITED	Office
2021	98 HOW MING ST	G & M ENGINEERING COMPANY LIMITED	Office
2021	New - Office - 218 Electric Road, North Point	PMB-CYBERWALL LIMITED	Office
2021	YUEN LONG STATION YLTL 510	PROGRAM CONTRACTORS LIMITED	Residential
2021	TAI WAI STATION NW RES	PROGRAM CONTRACTORS LIMITED	Residential
2022	217-235 CASTLE PEAK RD, UN CHAU ST	CHEVALIER (ALUMINIUM ENGINEERING)	Residential
2022	YAU MA TEI- KWONG WAH HOSPITAL PHASE 1	CPD HK	Health
2022	YAU MA TEI- KWONG WAH HOSPITAL PHASE 1	FAR EAST FACADE (HONG KONG) LIMITED	Health
2022	UNIVERSITY SPORTS CENTRE EXT, CUHK	UNISTRESS BUILDING CONSTRUCTION	Sport & Recreation
2022	HKIA 3508 TERMINAL 2	EASY SMART ENGINEERING LIMITED	Transport
2022	TAI WAI STATION NW RES	CREATIVE FACADE ENGINEERING LIMITED	Residential
2022	TIN SHUI WAI AREA 112 LOT 33	BOTH ARTS ENGINEERING LIMITED	Residential
2022	41 KING YIP ST	YAU CHEONG ENGINEERING (HONG KONG)	Office
2022	QUEEN MARY HOSPITAL PH1 (SS F501)	SUN LUNG DECORATION CO LTD	Health
2023	WONG CHUK HANG STATION PH3 (SITE C)	CHINA OVERSEAS BUILDING	Residential
2023	TAI WAI STATION NW RES	HOP FAT STRUCTURAL STEEL	Residential
2023	11 MIDDLE RD - KIMPTON HONG KONG	JANGHO CURTAIN WALL ENGINEERING	Hospitality
2023	91 KING LAM ST, NKIL 6505	CREATIVE FACADE ENGINEERING LIMITED	Office