





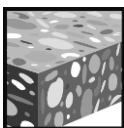


Hilti HIT-HY 10 Adhesive Anchor System

Injection mortar system	Benefits
 <p>Hilti HIT-HY10 330 ml foil pack 500 ml foil pack</p>  <p>Mixer HIT RE-M</p>  <p>Rebar, acc. EN 1992-1-1 Ann. C</p>  <p>Threaded rods: HIT-V HAS</p>  <p>HIS-N sleeve</p>  <p>Hilti HDM 330 Hilti HDM 500 Hilti HDE 500-A</p>	<ul style="list-style-type: none"> - chemical injection fastening - two-component hybrid mortar - rapid curing - suitable for overhead fastenings - versatile and convenient handling - clean and simple in use - small edge distance and anchor spacing - always correct mixing ratio - in-service temperatures: short term: max. 80°C long term: max. 50°C



Concrete

Basic loading data (for a single anchor)

Data in this section applies to

- Non-cracked concrete C20/25, $f_{ck,cube} = 25 \text{ N/mm}^2$
- Load values valid for holes drilled with TE rotary hammers in hammering mode.
- Diamond coring is not permitted
- Embedment depth, base material thickness given in table page 2
- Correct anchor setting (see instruction for use, setting details)
- No edge distance and spacing influence
- Base material temperature during installation and curing must be between 0°C through +40°C
- In-service temperate range:
min base material temperature -40°C
max. long term/short term base material temperature: +24°C/40°C

Recommended loads for tension loading: non-cracked concrete C 20/25

The data provided in the following table is intended for product comparison only and not suitable for the complete design of an anchorage.

Threaded rods - size			M8	M10	M12	M16
Drill bit diameter	d_0	[mm]	10	12	14	18
Embedment depth	h_{ef}	[mm]	80	90	110	125
Base material thickness	h	[mm]	110	130	150	196
Tensile load	N_{rec}	[kN]	5,0	7,0	10,0	12,0

Rebar - size			Ø8	Ø10	Ø12	Ø13	Ø14	Ø16
Drill bit diameter	d_0	[mm]	12	14	16	18	18	20
Embedment depth	h_{ef}	[mm]	80	90	110	125	125	145
Base material thickness	h	[mm]	130	150	170	180	190	210
Tensile load	N_{rec}	[kN]	5,0	7,0	10,0	11,0	11,5	12,0

Materials
Material quality steel elements

Part	Material
Rebar	Refer to EN 1992-1-1 Annex C Table C.1 and C.2N
Threaded rod HIT-V, HAS-(E)	Strength class 5.8, EN ISO 898-1, A5 > 8% ductile steel galvanized $\geq 5 \mu\text{m}$, EN ISO 4042
Threaded rod HIT-V-R, HAS-(E)R	Stainless steel grade A4, A5 > 8% ductile strength class 70, EN ISO 3506-1, EN 10088: 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362
Internal threaded sleeve ^{a)} HIS-N	C-steel 1.0718, EN 10277-3 Steel galvanized $\geq 5 \mu\text{m}$ EN ISO 4042
Internal threaded sleeve ^{a)} HIS-RN	Stainless steel 1.4401 and 1.4571 EN 10088
Washer ISO 7089	Steel galvanized, EN ISO 4042;
	Stainless steel, EN 10088: 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362
Nut EN ISO 4032	Strength class 8, ISO 898-2 steel galvanized $\geq 5 \mu\text{m}$, EN ISO 4042
	Strength class 70, EN ISO 3506-2, stainless steel grade A4, EN 10088: 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362

a) related fastening screw: strength class 8.8 EN ISO 898-1, A5 > 8% Ductile steel galvanized $\geq 5 \mu\text{m}$ EN ISO 4042

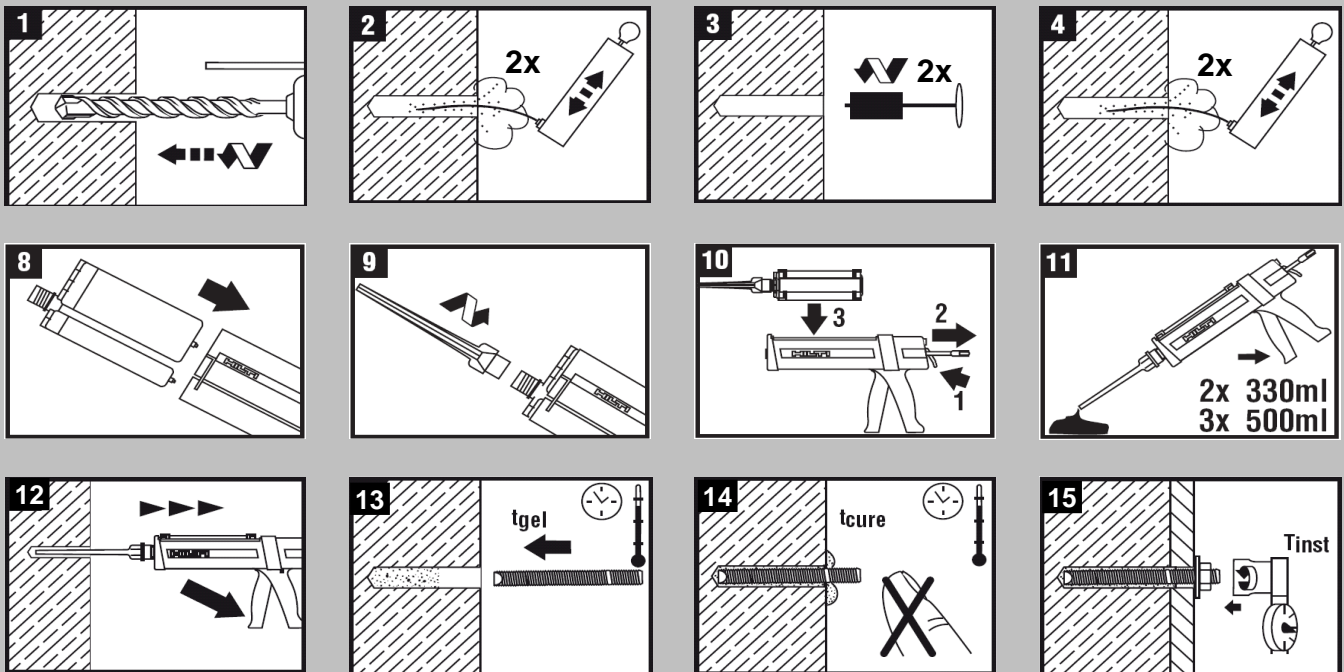
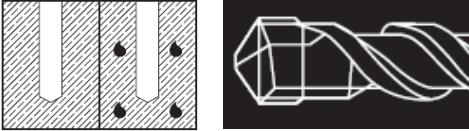
b) related fastening screw: strength class 70 EN ISO 3506-1, A5 > 8% Ductile stainless steel 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362 EN 10088

Setting
Installation equipment

Anchor size	M6	M8	M10	M12
Rotary hammer	TE2 – TE16			
Other tools	blow out pump, set of cleaning brushes, dispenser			

Setting instruction

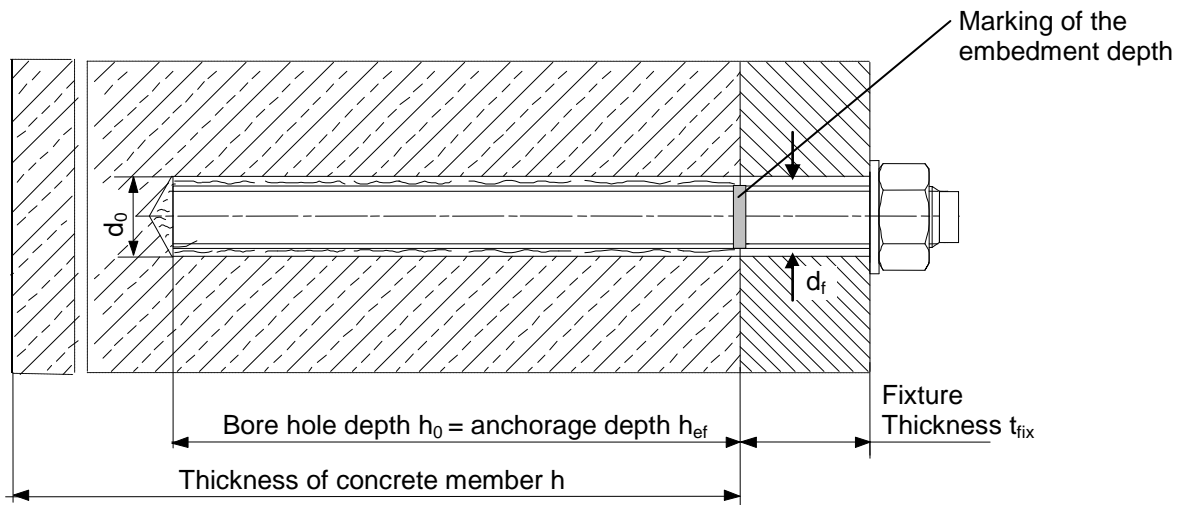
Dry and water-saturated concrete, hammer drilling



13	°F	°C	t _{gel} 🕒
	32	0	10 min
	41	5	10 min
	50	10	8 min
	68	20	5 min
	86	30	3 min
	104	40	2 min

14	°F	°C	t _{cure} 🕒
	32	0	4 h
	41	5	2.5 h
	50	10	1.5 h
	68	20	45 min
	86	30	30 min
	104	40	20 min

Setting details



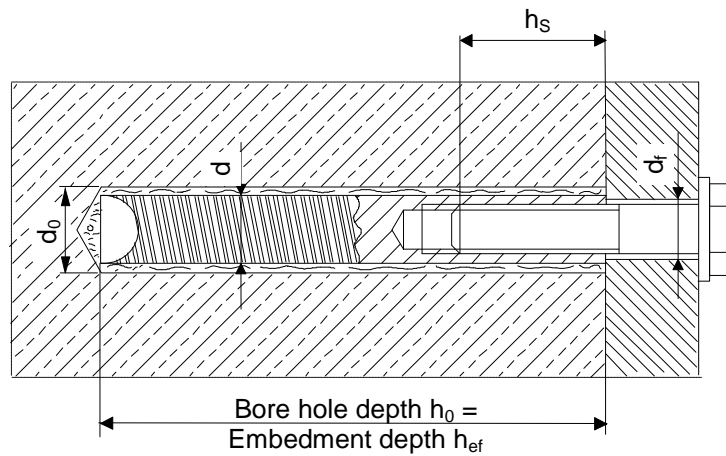
Setting details: Threaded Rod

Anchor size		Threaded Rod			
		M8	M10	M12	M16
Nominal diameter of drill bit	d_0 [mm]	10	12	14	18
Effective anchorage depth	h_{ef} [mm]	80	90	110	125
Minimum base material thickness	h_{min} [mm]	110	130	150	196
Diameter of clearance hole in the fixture	d_f [mm]	9	12	14	18
Minimum spacing	s_{min} [mm]	40	50	60	80
Minimum edge distance	c_{min} [mm]	40	50	60	80
Torque moment	T_{max} [Nm]	10	20	40	80

Setting details: Rebar

Anchor size		Rebar					
		Ø8	Ø10	Ø12	Ø13	Ø14	Ø16
Nominal diameter of drill bit	d_0 [mm]	12	14	16	18	18	20
Effective embedment and drill hole depth range ^{a)} for rebar	h_{ef} [mm]	80	90	110	120	125	145
Minimum base material thickness	h_{min} [mm]	$h_{ef} + 50$ mm					
Minimum spacing	s_{min} [mm]	40	50	60	65	70	80
Minimum edge distance	c_{min} [mm]	40	50	60	70	80	100

Setting details: Internal threaded sleeve HIS-N / HIS-RN



Anchor size		M8x90	M10x110	M12x125
Nominal diameter of drill bit	d_0 [mm]	14	18	22
Diameter of element	d [mm]	12,5	16,5	20,5
Effective anchorage depth	h_{ef} [mm]	90	110	125
Minimum base material thickness	h_{min} [mm]	120	150	170
Diameter of clearance hole in the fixture	d_f [mm]	9	12	14
Thread engagement length; min - max	h_s [mm]	8-20	10-25	12-30
Torque moment ^{a)}	T_{max} [Nm]	10	20	40
Minimum spacing	s_{min} [mm]	40	45	55
Minimum edge distance	c_{min} [mm]	40	45	55