


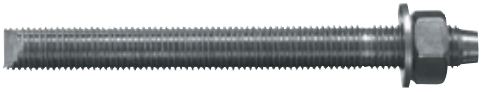






## Hilti HIT-HY 10 Adhesive Anchor System

Injection Mortar System	Benefits
 <p>Hilti HIT-HY10            330 ml foil pack            500 ml foil pack</p>	<ul style="list-style-type: none"> <li>■ chemical injection fastening for all type of base materials:</li> <li>■ hollow and solid</li> </ul>
 <p>Mixer</p>	<ul style="list-style-type: none"> <li>■ clay bricks, sand-lime bricks, normal and light weight concrete blocks, aerated light weight concrete, natural stones</li> </ul>
 <p>HIT-V rods</p>	<ul style="list-style-type: none"> <li>■ two-component hybrid mortar</li> <li>■ rapid curing</li> </ul>
 <p>HAS rods            HAS-E rod</p>	<ul style="list-style-type: none"> <li>■ versatile and convenient handling</li> <li>■ flexible setting depth and fastening thickness</li> </ul>
 <p>HIT-IC internal threaded sleeve</p>	<ul style="list-style-type: none"> <li>■ small edge distance and anchor spacing</li> </ul>
 <p>HIT-SC composite sleeve</p>	<ul style="list-style-type: none"> <li>■ mortar filling control with HIT-SC sleeves</li> </ul>
 <p>Dispenser:            Hilti HDM 330            Hilti HDM 500</p>	<ul style="list-style-type: none"> <li>■ in-service temperatures:              short term: max. 80°C              long term: max. 50°C</li> </ul>
 <p>Hilti HDE 500-A</p>	



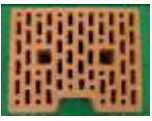

Hollow brick

### Basic loading data (for a single anchor)

#### All data in this section applies to

- Load values valid for holes drilled with TE rotary hammers in hammering mode
- Correct anchor setting (see instruction for use, setting details)
- Steel quality of fastening elements: see data below
- Steel quality for screws for HIT-IC and HIS-N: min. grade 5.8 / HIS-RN: A4-70
- Threaded rods of appropriate size (diameter and length) and a minimum steel quality of 5.6 can be used
- Base material temperature during installation and curing must be between 0°C through +40°C

**Hollow masonry: HIT-HY 10 with HIT-SC and HAS / HIT-V and HIT-IC**

			HAS, HAS-E, HIT-V				HIT-IC		
Anchor size			M8	M10	M12		M8	M10	M12
Base material	Setting depth [mm]		HIT-SC 16x...	HIT-SC 16x...	HIT-SC 18x...	HIT-SC 22x...	HIT-SC 16x...	HIT-SC 18x...	HIT-SC 22x...
<b>Hiz 12</b> DIN 105/ EN 771-1 $f_b^{a)} \geq 12 \text{ N/mm}^2$  <b>Fire light brick Scoria Blend</b> $f_{uc}^{b)} \geq 4 \text{ N/mm}^2$ L x H x B [mm] 230 x 110 x 119 	80	$F_{rec} \text{ [kN]}$	0,8	0,8	0,8	0,8	0,8	0,8	0,8

 a)  $f_b$  = brick strength

Due to the wide variety of bricks site tests have to be performed for determination of load values for all applications outside of the above mentioned base materials and / or setting conditions.

**Materials**
**Material quality Threaded Rod**

Part	Material
Threaded rod HIT-V, HAS-(E)	Strength class 5.8, EN ISO 898-1, $A_5 > 8\%$ ductile steel galvanized $\geq 5 \mu\text{m}$ , EN ISO 4042
Threaded rod HIT-V, HAS-(E)R	Stainless steel grade A4, $A_5 > 8\%$ ductile strength class 70, EN ISO 3506-1, EN 10088: 1.4401; 1.4404; 1.4578; 1.4571; 1.4439; 1.4362
HIT-IC sleeve	Carbon steel; galvanized to min. $5 \mu\text{m}$
HIS-N	C-steel 1.0718, EN 10277-3, Steel galvanized $5 \mu\text{m}$ EN ISO 4042
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
HIT-SC sleeve	PA/PP

**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 in hollow base material



**12** HIT-SC

**13** HIT-SC

**14** HIT-S

**15**  $t_{gel}$

**16**  $t_{cure}$

**17**  $T_{inst}$

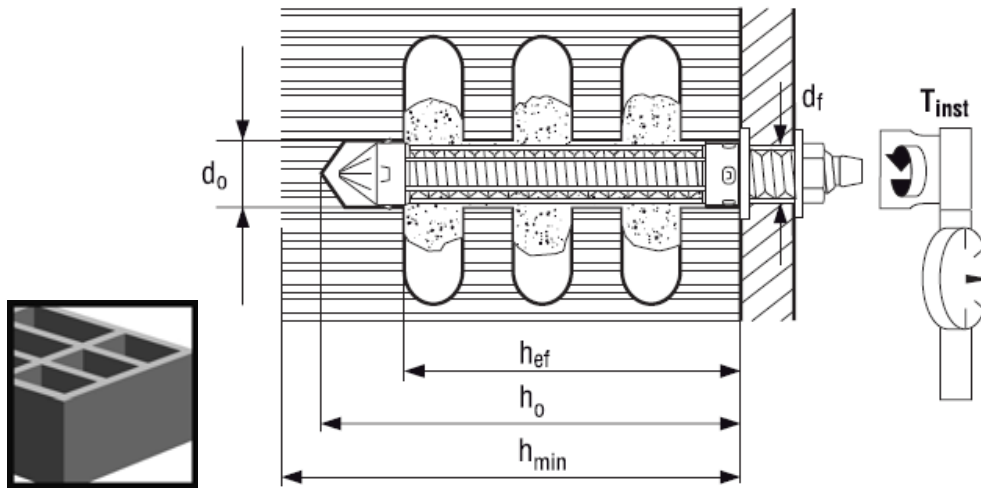
15	°F	°C	$t_{gel}$
	32	0	10 min
	41	5	10 min
	50	10	8 min
	68	20	5 min
	86	30	3 min
	104	40	2 min

16	°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:**

hole depth  $h_0$  and effective anchorage depth in hollow base materials  
 HAS, HIT-V with HIT-SC

**HAS, HIT-V**



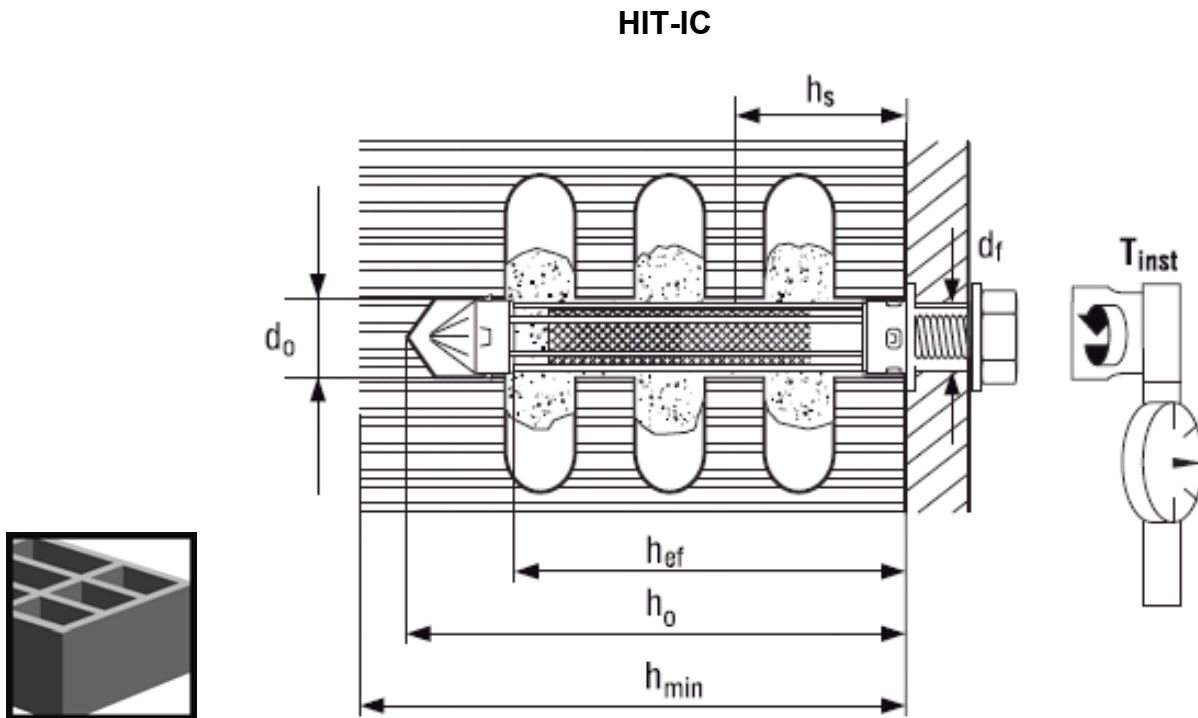
**Setting details HAS / HIT-V ... with sieve sleeve**

Anchor size			M6		M8		M10		M12			
Sieve sleeve HIT SC			12x50	12x85	16x50	16x85	16x50	16x85	18x50	18x85	22x50	22x85
Nominal diameter of drill bit	$d_0$	[mm]	12	12	16	16	16	16	18	18	22	22
Effective anchorage depth	$h_{ef}$	[mm]	50	80	50	80	50	80	50	80	50	80
Hole depth	$h_0$	[mm]	60	95	60	95	60	95	60	95	60	95
Minimum base material thickness	$h_{min}$	[mm]	80	115	80	115	80	115	80	115	80	115
Diameter of clearance hole in the fixture	$d_f$	[mm]	7	7	9	9	12	12	14	14	14	14
Minimum spacing <sup>a)</sup>	$s_{min}$	[mm]	100	100	100	100	100	100	100	100	100	100
Minimum edge distance <sup>a)</sup>	$c_{min}$	[mm]	100	100	100	100	100	100	100	100	100	100
Torque moment	$T_{inst}$	[Nm]	3	3	3	3	4	4	6	6	6	6
Filling volume		[ml]	12	24	18	30	18	30	18	36	30	55

#### Setting details:

hole depth  $h_0$  and effective anchorage depth in hollow base materials

HIT-IC with HIT-SC



#### Setting details HIT-IC with sieve sleeve

Anchor size			HIT-IC		
			M8	M10	M12
Sieve sleeve HIT SC			16x85	18x85	22x85
Nominal diameter of drill bit	$d_0$	[mm]	16	18	22
Effective anchorage depth	$h_{ef}$	[mm]	80	80	80
Hole depth	$h_0$	[mm]	95	95	95
Minimum base material thickness	$h_{min}$	[mm]	115	115	115
Diameter of clearance hole in the fixture	$d_f$	[mm]	9	12	14
Length of bolt engagement	$h_s$	[mm]	min. 10 – max. 75		
Minimum spacing	$s_{min}$	[mm]	100	100	100
Minimum edge distance	$c_{min}$	[mm]	100	100	100
Torque moment	$T_{inst}$	[Nm]	3	4	6
Filling volume		[ml]	30	36	45