


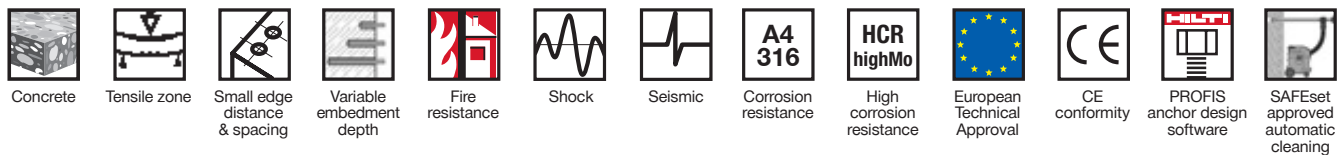


Hilti HIT-RE 500-SD with HIT-V

Injection Mortar System	Benefits
 <p>Hilti HIT-RE 500-SD 330 ml foil pack (also available as 500 ml and 1400 ml foil pack)</p>	<ul style="list-style-type: none"> ■ suitable for cracked concrete C 20/25 to C 50/60 ■ high loading capacity ■ suitable for dry and water saturated concrete ■ large diameter applications ■ high corrosion resistant ■ long working time at elevated temperatures ■ odourless epoxy ■ embedment depth range: from 40 ... 160 mm for M8 to 120 ... 600 mm for M30
 <p>Static mixer</p>	
 <p>HIT-V rods HIT-V (Zinc) HIT-V-F (Gal) HIT-V-R (A4-70) HIT-V-HCR rods</p>	



Basic loading data (for a single anchor)

All data in this section applies to

- Correct setting (See setting instruction)
- No edge distance and spacing influence
- Steel failure
- Base material thickness, as specified in the table
- One typical embedment depth, as specified in the table
- One anchor material, as specified in the tables
- Cracked concrete $f_{c,cyl} = 32$ MPa
- Temperature range I (min. base material temperature -40°C , max. long term/short term base material temperature: $+24^{\circ}\text{C}/40^{\circ}\text{C}$)
- Installation temperature range $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$

Embedment depth and base material thickness for the basic loading data

Recommended loads

Anchor size	M8	M10	M12	M16	M20	M24	M30
Typical embedment depth h_{ef} [mm]	80	90	110	125	170	210	270
Base material thickness h [mm]	110	120	150	200	250	300	350

Recommended loads

Anchor HIT-V Grade 5.8

Anchor size	M8	M10	M12	M16	M20	M24	M30
Tensile N_{rec} [kN]	6.4	9.4	12.9	15.7	26.6	39.5	54.4
Shear V_{rec} [kN]	5.1	8.6	12.0	22.3	34.9	50.3	80.0

Note: For varied embedment depths please contact your local Hilti engineer for further details.

Approvals / certificates

Description	Authority / Laboratory	No. / date of issue
European technical approval a)	DIBt, Berlin	ETA-07/0260 / 2013-06-26
ES report	ICC evaluation service	ESR 2322 / 2007-11-01
Fire test report	MFPA, Leipzig	GS-III/B-07-070 / 2008-01-18
Assessment report (fire)	warringtonfire	WF 166402 / 2007-10-26 & suppl. WF 172920 / 2008-05-27

a) All data given in this section according ETA-07/0260, issue 2013-06-26.

Curing time for general conditions

Data according ETA-07/0260, issue 2013-06-26		
Temperature of the base material	Working time in which anchor can be inserted and adjusted t_{gel}	Curing time before anchor can be fully loaded t_{cure}
40 °C	12 min	4 h
30 °C to 39 °C	12 min	8 h
20 °C to 29 °C	20 min	12 h
15 °C to 19 °C	30 min	24 h
10 °C to 14 °C	90 min	48 h
5 °C to 9 °C	120 min	72 h

Setting details

Anchor size		Data according ETA-07/0260, issue 2013-06-26						
		M8	M10	M12	M16	M20	M24	M30
Nominal diameter of drill bit	d_0 [mm]	10	12	14	18	24	28	35
Effective anchorage and drill hole depth range a)	$h_{ef,min}$ [mm]	40	40	48	64	80	96	120
	$h_{ef,max}$ [mm]	160	200	240	320	400	480	600
Minimum base material thickness	h_{min} [mm]	$h_{ef} + 30 \text{ mm} \geq 100 \text{ mm}$			$h_{ef} + 2 d_0$			
Diameter of clearance hole in the fixture	d_f [mm]	9	12	14	18	22	26	33
Minimum spacing	s_{min} [mm]	40	50	60	80	100	120	150
Minimum edge distance	c_{min} [mm]	40	50	60	80	100	120	150
Torque moment b)	$T_{max}^{b)}$ [Nm]	10	20	40	80	150	200	300

a) $h_{ef,min} \leq h_{ef} \leq h_{ef,max}$ (h_{ef} : embedment depth)

b) This is the maximum recommended torque moment to avoid splitting during installation for anchors with minimum spacing and/or edge distance.