



## HPS-1 Plastic anchors

Economical plastic impact anchor

### Anchor version Benefits



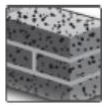
HPS-1  
(M4-M8)

- Impact anchor for light frames, battens and profiles on solid base materials
- Impact and temperature resistant
- High quality plastic

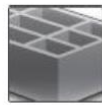
### Base material



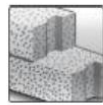
Concrete  
(non-cracked)



Solid brick



Hollow brick



Autoclaved  
aerated  
concrete

### Basic loading data

**All data in this section applies to:**

- Correct setting (See setting instruction)
- No edge distance and spacing influence
- Base material as specified in the table
- Minimum base material thickness
- Loads shall be reduced if the temperature sustains above 40°C

**Recommended loads<sup>a)</sup>**

Anchor size		4/0	5/0	5/5- 5/15	6/0- 6/25	6/30- 6/40	8/0	8/10- 8/40	8/60- 8/100
Concrete ≥ C 16/20	N <sub>Rd</sub> [kN]	0,05	0,10	0,15	0,25	0,25	0,30	0,40	0,40
	V <sub>Rd</sub> [kN]	0,15	0,30	0,35	0,55	0,35	0,50	0,90	0,50
Engineering brick, 12 hole, class B	N <sub>Rd</sub> [kN]	0,05	0,10	0,15	0,25	0,25	0,30	0,40	0,40
	V <sub>Rd</sub> [kN]	0,15	0,30	0,35	0,55	0,35	0,50	0,90	0,50
Perforated brick 3 hole common	N <sub>Rd</sub> [kN]	0,05	0,10	0,15	0,20	0,20	0,25	0,30	0,30
	V <sub>Rd</sub> [kN]	0,15	0,30	0,35	0,55	0,35	0,50	0,90	0,55
Thermalite block, 7 N lightweights	N <sub>Rd</sub> [kN]	-	-	0,08	0,15	0,15	0,20	0,25	0,25
	V <sub>Rd</sub> [kN]	-	-	0,15	0,25	0,15	0,40	0,40	0,25
Thermalite block, 1/2 N lightweights	N <sub>Rd</sub> [kN]	-	-	0,05	0,08	0,08	-	0,12	0,12
	V <sub>Rd</sub> [kN]	-	-	0,10	0,15	0,10	-	0,25	0,15
Autoclaved aerated concrete AAC 4, ACC 6	N <sub>Rd</sub> [kN]	-	-	0,08	0,10	0,10	-	0,15	0,15
	V <sub>Rd</sub> [kN]	-	-	0,10	0,12	0,10	-	0,30	0,20
Extruded brick, Boral 10	N <sub>Rd</sub> [kN]	0,05	0,10	0,15	0,20	0,20	0,25	0,35	0,35
	V <sub>Rd</sub> [kN]	0,15	0,25	0,30	0,40	0,25	0,50	0,90	0,55

a) With overall global safety factor  $\gamma = 5$  to the characteristic loads and a partial safety factor of  $\gamma = 1,4$  to the design values.



**Materials**

**Material quality**

Part	Material
Plastic sleeve	Polyamide 6.6
Screw	Carbon steel, galvanised to min. 5µm
	Stainless steel, grade A2
	Stainless steel, grade A2, copper-plated

**Setting information**

**Installation temperature**

-10 °C to +40°C

**Service temperature range**

Hilti HPS-1 impact anchor may be applied in the temperature range below.

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

**Max. short term base material temperature**

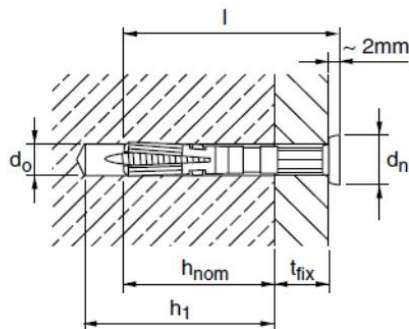
Short-term elevated base material temperatures are those that occur over brief intervals, e.g. as a result of diurnal cycling.

**Max. long term base material temperature**

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

**Setting details HPS-1**

Anchor		HPS-1 4	HPS-1 5	HPS-1 6	HPS-1 8
Nominal diameter of drill bit	$d_o$ [mm]	4	5	6	8
Cutting diameter of drill bit	$d_{cut} \leq$ [mm]	4,35	5,35	6,4	8,45
Depth of drill hole	$h_1 \geq$ [mm]	25	30	40	50
Nominal embedment depth	$h_{nom}$ [mm]	20	20	25	30
Anchor length	$l$ [mm]	21,5	22 - 37	27 - 67	28,5 – 132,5
Max fixture thickness	$t_{fix}$ [mm]	2	15	40	100



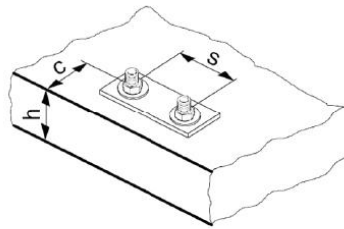


**Installation equipment**

Anchor	HPS-1 4	HPS-1 5	HPS-1 6	HPS-1 8
Rotary hammer	TE2 - TE16			
Other tools	Screwdriver			

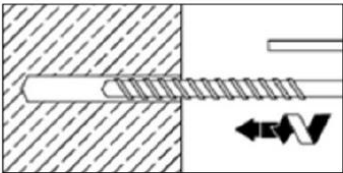
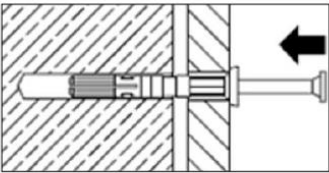
**Setting parameters HPS-1**

Anchor	HPS-1 4	HPS-1 5	HPS-1 6	HPS-1 8
Spacing	s [mm]	20	25	30
Edge distance	c [mm]	20	25	30



**Setting instruction**

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

Setting instructions		
<p><b>1. Drill hole with drill bit</b></p> 	<p><b>2. Install anchor</b></p> 	<p><b>3. Hammer in anchor</b></p> 