



HPS-1 PLASTIC ANCHOR


Technical Datasheet

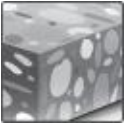
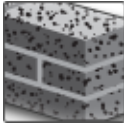
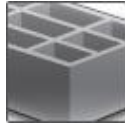
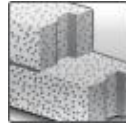
Update: Jan-23



HPS-1 Plastic anchors

Economical plastic impact anchor

Anchor version	Benefits
 <p>HPS-1 (d4-d8)</p>	<ul style="list-style-type: none"> - Impact anchor for light frames, battens and profiles on solid base materials - Impact and temperature resistant - High quality plastic

Base material
   
<p>Concrete (non-cracked) Solid brick Hollow brick Autoclaved aerated concrete</p>

Basic loading data
<p>All data in this section applies to:</p> <ul style="list-style-type: none"> - Correct setting (See setting instruction) - No edge distance and spacing influence - Base material as specified in the table - Minimum base material thickness

Anchorage depth		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
Nominal embedment depth	h_{nom} [mm]	25	30	30	40	40	50	50	50

Recommended loads ^{a)}		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 \geq C16/20	N_{Rec} [kN]	0,05	0,10	0,15	0,25	0,25	0,30	0,40	0,40
	V_{Rec} [kN]	0,15	0,30	0,35	0,55	0,35	0,50	0,90	0,50
Engineering brick, 12 hole, class B	N_{Rec} [kN]	0,05	0,10	0,15	0,25	0,25	0,30	0,40	0,40
	V_{Rec} [kN]	0,15	0,30	0,35	0,55	0,35	0,50	0,90	0,50
Perforated brick 3 hole common	N_{Rec} [kN]	0,05	0,10	0,15	0,20	0,20	0,25	0,30	0,30
	V_{Rec} [kN]	0,15	0,30	0,35	0,55	0,35	0,50	0,90	0,55
Thermalite block, 7 N lightweights	N_{Rec} [kN]	-	-	0,08	0,15	0,15	0,20	0,25	0,25
	V_{Rec} [kN]	-	-	0,15	0,25	0,15	0,40	0,40	0,25
Thermalite block, 1/2 N lightweights	N_{Rec} [kN]	-	-	0,05	0,08	0,08	-	0,12	0,12
	V_{Rec} [kN]	-	-	0,10	0,15	0,10	-	0,25	0,15
Autoclaved aerated concrete AAC 4, ACC 6	N_{Rec} [kN]	-	-	0,08	0,10	0,10	-	0,15	0,15
	V_{Rec} [kN]	-	-	0,10	0,12	0,10	-	0,30	0,20
Extruded brick, Boral 10	N_{Rec} [kN]	0,05	0,10	0,15	0,20	0,20	0,25	0,35	0,35
	V_{Rec} [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

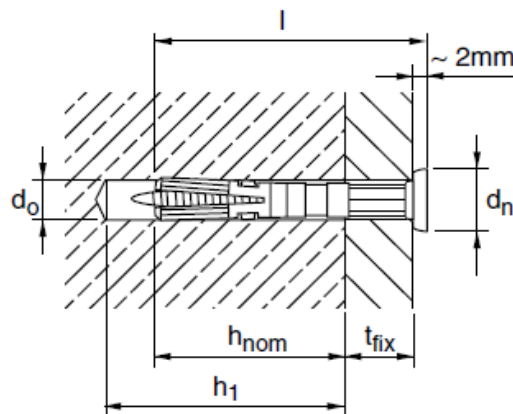
Short-term elevated base material temperatures are those that occur over brief intervals, e.g. as a result of diurnal cycling.

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



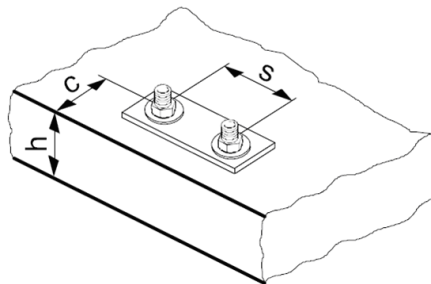


Installation equipment

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
Minimum spacing	s	[mm]	20	25	30	35
Minimum edge distance	c	[mm]	20	25	30	35



Setting instruction

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

Setting instructions		
1. Drill hole with drill bit 	2. Install anchor 	3. Hammer in anchor