



HUD-2 PLASTIC ANCHOR

Technical Datasheet

Update: Jan-23



HUD-2 Plastic anchor

Economical universal plastic anchor

Anchor version



HUD-2
(5, 6, 8)

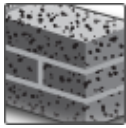
Benefits

- Flat setting
- Flexibility of screw length
- An anchor for every base material

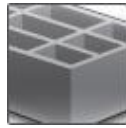
Base material



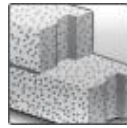
Concrete
(non-cracked)



Solid brick



Hollow brick



Autoclaved
aerated
concrete



Drywall

Basic loading data

All data in this section applies to:

- Correct setting (see setting instruction)
- Load data are only valid for the specified chipboard screw type
- No edge distance and spacing influence
- Base material as specified in the table
- Minimum base material thickness
- Load data given in the tables is independent of load direction

Anchorage depth

Anchor size		5x25	6x30	8x40
Nominal embedment depth	h_{nom} [mm]	25	30	40

Characteristic resistance

Anchor size			HUD-2 5x25	HUD-2 6x30	HUD-2 8x40
Screw type			Chipboard screw 4x40 ^{a)}	Chipboard screw 5x50 ^{b)}	Chipboard screw 6x50 ^{c)}
Base material	Drilling mode				
Concrete, uncracked Strength \geq C16/20	hammer	F_{Rk} [kN]	0,60	1,2	2,5
Solid clay brick Name: Mauerziegel MZ Manuf.: Ziegelwerk Klosterbeuren Size : NF Strength: \geq 20	hammer	F_{Rk} [kN]	0,60	0,90	2,50
Hollow clay brick Name: ThermoPlan Planziegel-TS ² 1,2 Manuf.: Ziegelwerk Klosterbeuren Size : 373x175x249 mm Strength class: \geq 12	rotary	F_{Rk} [kN]	0,60	0,80	1,20
Autoclaved aerated concrete Name: AAC 4 Manuf.: Ytong Size : 625x250x250 mm Strength: \geq 6	rotary	F_{Rk} [kN]	0,30	0,60	0,90
Drywall, single layer 12,5 Name: Bauplatte Manuf.: Knauff Size : 2000x1250x12,5 mm	rotary	F_{Rk} [kN]	0,15	0,15	0,15
Drywall, double layer 2x12,5 Name: Bauplatte Manuf.: Knauff Size : 2000x1250x12,5 mm	rotary	F_{Rk} [kN]	0,20	0,25	0,40
Fibre reinf. drywall, single layer 12,5 Name: Vidiwall Manuf.: Knauff Size : 1250x1000x12,5 mm	rotary	F_{Rk} [kN]	0,50	0,60	0,60

a) chipboard screw 4x40: outer diameter 3,9 mm, core diameter 2,4 mm

b) chipboard screw 5x50: outer diameter 4,8 mm, core diameter 2,9 mm

c) chipboard screw 6x50: outer diameter 5,8 mm, core diameter 3,8 mm



Design resistance ^{d)}

Anchor size		HUD-2 5x25	HUD-2 6x30	HUD-2 8x40
Screw type		Chipboard screw 4x40 ^{a)}	Chipboard screw 5x50 ^{b)}	Chipboard screw 6x50 ^{c)}
Base material	Drilling mode			
Concrete, uncracked Strength \geq C16/20	hammer F_{Rd} [KN]	0,33	0,67	1,4
Solid clay brick Name: Mauerziegel MZ Manuf.: Ziegelwerk Klosterbeuren Size : NF Strength: \geq 20	hammer F_{Rd} [KN]	0,24	0,36	1,00
Hollow clay brick Name: ThermoPlan Planziegel-TS ² 1,2 Manuf.: Ziegelwerk Klosterbeuren Size : 373x175x249 mm Strength class: \geq 12	rotary F_{Rd} [KN]	0,24	0,32	0,48
Autoclaved aerated concrete Name: AAC 4 Manuf.: Ytong Size : 625x250x250 mm Strength: \geq 6	rotary F_{Rd} [KN]	0,15	0,30	0,45
Drywall, single layer 12,5 Name: Bauplatte Manuf.: Knauff Size : 2000x1250x12,5 mm	rotary F_{Rd} [KN]	0,06	0,06	0,06
Drywall, double layer 2x12,5 Name: Bauplatte Manuf.: Knauff Size : 2000x1250x12,5 mm	rotary F_{Rd} [KN]	0,08	0,10	0,16
Fibre reinf. drywall, single layer 12,5 Name: Vidiwall Manuf.: Knauff Size : 1250x1000x12,5 mm	rotary F_{Rd} [KN]	0,20	0,24	0,24

a) chipboard screw 4x40: outer diameter 3,9 mm, core diameter 2,4 mm

b) chipboard screw 5x50: outer diameter 4,8 mm, core diameter 2,9 mm

c) chipboard screw 6x50: outer diameter 5,8 mm, core diameter 3,8 mm

d) with partial safety factor factors $\gamma_M = 1,8$ for concrete; $\gamma_M = 2,0$ for AAC, $\gamma_M = 2,5$ for masonry, $\gamma_M = 2,5$ for drywall

Recommended loads ^{d)}

Anchor size		HUD-2 5x25	HUD-2 6x30	HUD-2 8x40	
Screw type		Chipboard screw 4x40 ^{a)}	Chipboard screw 5x50 ^{b)}	Chipboard screw 6x50 ^{c)}	
Base material	Drilling mode				
Concrete, uncracked Strength \geq C16/20	hammer	F_{rec} [KN]	0,24	0,48	1,0
Solid clay brick Name: Mauerziegel MZ Manuf.: Ziegelwerk Klosterbeuren Size : NF Strength: \geq 20	hammer	F_{rec} [KN]	0,17	0,26	0,71
Hollow clay brick Name: ThermoPlan Planziegel-TS ² 1,2 Manuf.: Ziegelwerk Klosterbeuren Size : 373x175x249 mm Strength class: \geq 12	rotary	F_{rec} [KN]	0,17	0,23	0,34
Autoclaved aerated concrete Name: AAC 4 Manuf.: Ytong Size : 625x250x250 mm Strength: \geq 6	rotary	F_{rec} [KN]	0,11	0,21	0,32
Drywall, single layer 12,5 Name: Bauplatte Manuf.: Knauff Size : 2000x1250x12,5 mm	rotary	F_{rec} [KN]	0,04	0,04	0,04
Drywall, double layer 2x12,5 Name: Bauplatte Manuf.: Knauff Size : 2000x1250x12,5 mm	rotary	F_{rec} [KN]	0,06	0,07	0,11
Fibre reinf. drywall, single layer 12,5 Name: Vidiwall Manuf.: Knauff Size : 1250x1000x12,5 mm	rotary	F_{rec} [KN]	0,14	0,17	0,17

a) chipboard screw 4x40: outer diameter 3,9 mm, core diameter 2,4 mm

b) chipboard screw 5x50: outer diameter 4,8 mm, core diameter 2,9 mm

c) chipboard screw 6x50: outer diameter 5,8 mm, core diameter 3,8 mm

d) with additional safety factor $\gamma = 1,4$ to design values



Materials

Material quality

Part	Material
Plastic sleeve	Polyamide 6

Setting information

Installation temperature

-10°C to +40°C

Service temperature range

Hilti HUD-2 universal anchor may be applied in the temperature range given below.

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

Max short term base material temperature

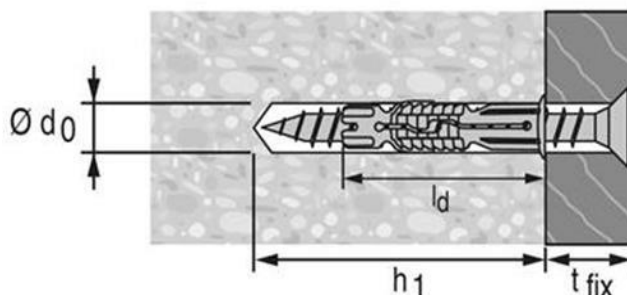
Short-term elevated base material temperatures are those that occur over brief intervals, e.g. as a result of diurnal cycling.

Max long term base material temperature

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

Installation parameters

Anchor size		5x25	6x30	8x40
Nominal diameter of drill bit	d_0 [mm]	5	6	8
Cutting diameter of the drill bit	$d_{cut} \leq$ [mm]	5,4	6,4	8,45
Nominal embedment depth	l_d [mm]	25	30	40
Recommended length of screw in base material	[mm]	≥ 30	≥ 35	≥ 45
Drill hole depth	h_0 [mm]	≥ 30	≥ 35	≥ 45
Minimum spacing	s_{min} [mm]	Not determined		
Minimum edge distance	c_{min} [mm]	Not determined		



Installation equipment

Anchor size	5x25	6x30	8x40
Rotary hammer	TE 2 - TE16		
Other tools	Screwdriver		

Setting instruction^{a)}

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

Setting instruction	
	1. Drill hole with drill bit
	2. Install anchor
	3. Drive screw into anchor

a) Use only for wall and floor applications. Not applicable for ceiling and façade applications.