

HRD Plastic frame anchors



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
- Steel failure
- Shear without lever arm
- Anchor in redundant fastening

Recommended Loads: (1)

Anchor size	HRD 8		HRD 10			
			50	70	90	
Concrete C12/15	h_{nom} [mm]	50	50	70	90	
	N_{Rd} [kN]	0,8	1,2	2,4	-	
	V_{Rd} [kN]	3,9 / 3,7 b)	6,1 / 5,8 b) / 6,1 c)		-	
Concrete C16/20 – C 50/60	N_{Rd} [kN]	1,2	1,8	3,4	-	
	V_{Rd} [kN]	3,9 / 3,7 b)	6,1 / 5,8 b) / 6,1 c)		-	
	$f_b \geq 20 \text{ N/mm}^2$	F_{Rd} [kN]	0,42	0,85 1,28 d)	f)	-
Solid clay brick Mz 2.0 DIN V 105-100/EN 771-1	$f_b \geq 10 \text{ N/mm}^2$	F_{Rd} [kN]	0,34	0,57	f)	-
	$f_b \geq 20 \text{ N/mm}^2$	F_{Rd} [kN]	-	1,0 1,71 d)	f)	-
	$f_b \geq 10 \text{ N/mm}^2$	F_{Rd} [kN]	-	0,71 1,28 d)	f)	-
Lightweight solid block Vbl 0,9 DIN V 18151-100/EN 771	$f_b \geq 6 \text{ N/mm}^2$	F_{Rd} [kN]	0,14	-	-	-
	$f_b \geq n/a$	F_{Rd} [kN]	0,4	-	-	-
	$f_b \geq 12 \text{ N/mm}^2$	F_{Rd} [kN]	0,14	-	-	-
Vertic. perforated clay brick Hz B 12/1,2 Brick A ⁹⁾	$f_b \geq 28 \text{ N/mm}^2$	F_{Rd} [kN]	-	0,57	0,71	-
	$f_b \geq 50 \text{ N/mm}^2$	F_{Rd} [kN]	-	0,85	1,0	-
Vertic. perforated clay brick Poroton T8 Brick M ⁹⁾	$f_b \geq 6 \text{ N/mm}^2$	F_{Rd} [kN]	-	0,21	0,42	-

1) With overall partial safety factor for action $\gamma = 1,4$. The partial safety factors for action depend on the type of loading and shall b-e taken from national regulations.

b) Values for hot-dipped galvanized carbon steel.

c) Values for stainless steel.

d) Valid for edge distance $c \geq 150\text{mm}$, intermediate values can be interpolated.

e) Specification on hollow base material brick types see separate table below.

f) Data can be determined by job-site testing, data for $h_{nom}=50\text{mm}$ can be applied.