LOADS

Concrete screw FBS 6 zinc plated

Highest permissible loads for a single anchor[1] for multiple use for non-structural applications in cracked and non-cracked concrete C20/25 to C50/60.

Type	Screw-in depth h_{nom} [mm]	Min. member thickness h_{min} [mm]	Installation torque $T_{inst, max}$ [Nm]	Permissible tensile load N_{perm} [3] [kN]	Permissible shear load V_{perm} [3] [kN]	Required edge distance (with one edge) for Max. tension load c [mm]	Max. shear load c [mm]	Required spacing for s [mm]	Min. spacing s_{min} [2] [mm]	Min. edge distance c_{min} [2] [mm]
FBS 6	35	80	≤ 10	0,6	2,4	35	75	80	35	35
FBS 6	55	100	≤ 10	3,6	3,3	50	70	135	40	40

For the design the complete approval ETA - 11/0093 has to be considered.

[1] The partial safety factors for material resistance as regulated in the approval as well as a partial safety factor for load actions of γ_L = 1,4 are considered. As an single anchor counts e.g. an anchor with a spacing s ≥ 3 x h_{ef} and an edge distance c ≥ 1,5 x h_{ef}.

[2] Minimum possible axial spacings resp. edge distance while reducing the permissible load.

[3] For combinations of tensile loads, shear loads, bending moments as well as reduced edge distances or spacings (anchor groups) see approval.

LOADS

Concrete screw FBS 6 zinc plated

Highest permissible loads[1] for a single anchor for multiple use for non-structural applications in pre-stressed hollow core slabs[4]

Type	Bottom flange thickness [mm]	Screw-in depth h_{nom} [mm]	Installation torque $T_{inst,max}$ [Nm]	Permissible load F_{perm} [3] [kN]	Min. spacing s_1, s_2 [2] [mm]	Min. edge distance c_1, c_2 [2] [mm]
FBS 6	≥ 25	35	≤ 10	0,4	100	100
	≥ 30	35	≤ 10	0,8	100	100
	≥ 35	35	≤ 10	1,2	100	100

For the design the complete approval ETA - 11/0093 has to be considered.

[1] The partial safety factors for material resistance as regulated in the approval as well as a partial safety factor for load actions of γ_L = 1,4 are considered.

[2] Minimum possible axial spacings resp. edge distance. For further measures see approval.

[3] Valid for tensile load, shear load and oblique load under any angel.

[4] Concrete strength class C30/37 up to C50/60.

LOADS

Concrete screw FBS 6 zinc plated

Highest recommended loads[1] for each fixing point[5] [6] in solid brick masonry.

Type			FBS 6
Minimum member thickness	h_{min}	[mm]	115
Embedment depth	h_{nom}	[mm]	55
Minimum spacing within anchor groups of 2 or 4 anchors	s_{min} [2]	[mm]	60
Minimum edge distance	c_{min} [2]	[mm]	200
Minimum distance to the horizontal joint	$s_{min} \perp$	[mm]	20
Minimum distance to the vertical joint	$s_{min}\|\|$	[mm]	40
Minimum distance between anchor groups	a	[mm]	[7]
Minimum brick dimensions			240x115x113
Recommended total load for a single anchor resp. anchor group Frec[3] [6]			
Recommended load[3] in solid brick Mz[4]	$f_{ck} \geq 12$ N /mm²	[kN]	0,85
Recommended load[3] in Solid sand-lime brick KS[4]	$f_{ck} \geq 12$ N /mm²	[kN]	0,66

[1] An appropriate safety factor is considered.

[2] Smallest possible spacing resp. edge distance without reducing the recommended load.

[3] Valid for tensile load, shear load and oblique load under any angle.

[4] Solid bricks acc. EN 771-1 resp. EN 772-2.

[5] The given data are valid for multiple fixings of non-structural applications. If the joints are not visible 100% anchor testing is recommended.

[6] A fixing point can be a single anchor, 2 anchors or 4 anchors with a minimum spacing s_{min}. Anchor groups of 4 anchors are arranged in rectangular disposition.

[7] The fixing points have to be arranged in this way that there will be always maximum one fixing point arranged in one brick.