Loads

High performance anchor FH II-I

Permissible loads of a single anchor[1] in normal concrete of strength class C20/25.
For the design the complete current assessment ETA-07/0025 has to be considered.

						Cracked concrete				Non-cracked concrete			
	Material/surface[2]	Screw material[2]	Effective anchorage depth	Minimum member thickness	Installation torque	Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads				Permissible tension (N_{perm}) and shear loads (V_{perm}); minimum spacing (s_{min}) and edge distances (c_{min}) with reduced loads			
Type			h_{ef} [mm]	h_{min} [mm]	T_{inst} [Nm]	N_{perm}[3] [kN]	V_{perm}[3] [kN]	s_{min}[3] [mm]	c_{min}[3] [mm]	N_{perm}[3] [kN]	V_{perm}[3] [kN]	s_{min}[3] [mm]	c_{min}[3] [mm]
FH II 12 / M6 I	gvz	5.8	60	125	15	4.3	2.9	50	50	4.8	2.9	60	60
	gvz	8.8	60	125	15	4.3	4.6	50	50	7.6	4.6	60	60
	R	A4-70	60	125	15	4.3	3.2	50	50	5.3	3.2	60	60
FH II 12 / M8 I	gvz	5.8	60	125	15	4.3	5.1	50	50	9.0	5.1	60	60
	gvz	8.8	60	125	15	4.3	8.0	50	50	9.5	8.0	60	60
	R	A4-70	60	125	15	4.3	6.0	50	50	9.5	6.0	60	60
FH II 15 / M10 I	gvz	5.8	70	150	25	5.7	8.6	60	60	13.7	8.6	70	70
	gvz	8.8	70	150	25	5.7	13.1	60	60	13.7	13.1	70	70
	R	A4-70	70	150	25	5.7	9.2	60	60	13.7	9.2	70	70
FH II 15 / M12 I	gvz	5.8	70	150	25	5.7	12.0	60	60	13.7	12.0	70	70
	gvz	8.8	70	150	25	5.7	13.7	60	60	13.7	13.7	70	70
	R	A4-70	70	150	25	5.7	13.7	60	60	13.7	13.7	70	70

[1] Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial safety factors for material resistance as regulated in the ETA as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered. As a single anchor counts e.g. an anchor with a spacing $s \geq 3 \times h_{ef}$ and an edge distance $c \geq 1.5 \times h_{ef}$. Accurate data see ETA.

[2] Further steel grades, versions and technical data see ETA, e.g. for dry internal conditions, galvanised steel (gvz); for damp interiors and for outdoor use, stainless steel (R).

[3] In the case of combinations of tension and shear loads, bending moments with reduced or minimum spacing and edge distances (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA and the provisions of the EN 1992-4:2018. We recommend using our anchor design software C-FIX.