

## Highbond-Anchor FHB II Inject

Permissible loads of a single anchor<sup>1) 2)</sup> in normal concrete of strength class C20/25.

For the design the complete current assessment ETA-05/0164 has to be considered.

Type	Material / surface <sup>3)</sup>	Effective anchor-age depth $h_{ef}$ [mm]	Minimum member thickness $h_{min}$ [mm]	Installation torque $T_{inst}$ [Nm]	Cracked concrete				Non-cracked concrete			
					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			
					$N_{perm}^{4)}$ [kN]	$V_{perm}^{4)}$ [kN]	$s_{min}^{4)}$ [mm]	$c_{min}^{4)}$ [mm]	$N_{perm}^{4)}$ [kN]	$V_{perm}^{4)}$ [kN]	$s_{min}^{4)}$ [mm]	$c_{min}^{4)}$ [mm]
FHB II-A S Inject M10 x 60	R	60	100	15	7.6	13.8	40	40	7.6	13.8	40	40
FHB II-A L Inject M10 x 95	R	95	140	20	15.2	13.3	40	40	16.4	13.3	40	40
FHB II-A S Inject M12 x 75	R	75	120	30	10.7	19.3	40	40	12.9	19.3	40	40
FHB II-A L Inject M12 x 100	R	100	140	40	16.4	19.3	50	50	21.4	19.3	50	50
FHB II-A L Inject M12 x 120	R	120	170	40	21.6	19.3	50	50	23.7	19.3	50	50
FHB II-A S Inject M16 x 95	R	95	150	50	15.2	30.4	50	50	21.7	35.8	50	50
FHB II-A L Inject M16 x 125	R	125	170	60	22.9	35.8	55	55	32.7	35.8	55	55
FHB II-A L Inject M16 x 160	R	160	220	60	33.2	35.8	70	70	46.0	35.8	70	70

<sup>1)</sup> 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.

<sup>2)</sup> The specified loads are valid for anchorages in dry and damp concrete. For temperatures in the anchoring substrate up to 50 °C (resp. short term up to 80 °C). Drill hole cleaning as per specification in the ETA.

<sup>3)</sup> 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).

<sup>4)</sup> 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.