

Zykon Bolt anchor FZA

Zinc plated steel / stainless steel / high corrosion resistant steel / hot dip galvanised steel

Permissible loads of a single anchor¹⁾ in normal concrete of strength class C20/25 and drill hole cleaning as per specification in the ETA.

For the design the complete ETA-98/0004 of 18.02.2020 has to be considered.

Type	Material	Effective anchorage depth h_{ef} [mm]	Min. member thickness h_{min} [mm]	Maximum installation torque $T_{inst,max}$ [Nm]	Cracked concrete				Non-cracked concrete			
					Permissible tension (N_{perm}), shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})				Permissible tension (N_{perm}), shear loads (V_{perm}), minimum spacing (s_{min}) and edge distances (c_{min})			
					$N_{perm}^{2)}$ [kN]	$V_{perm}^{2)}$ [kN]	$s_{min}^{3)}$ [mm]	$c_{min}^{3)}$ [mm]	$N_{perm}^{2)}$ [kN]	$V_{perm}^{2)}$ [kN]	$s_{min}^{3)}$ [mm]	$c_{min}^{3)}$ [mm]
FZA 10 x 40 M6	gvz	40	100	8,5	2,4	5,0	40	35	4,8	5,0	40	35
	A4	40	100	8,5	2,4	4,2	40	35	4,8	4,2	40	35
	C	40	100	8,5	2,4	5,3	40	35	4,8	5,3	40	35
FZA 12 x 40 M8	gvz	40	100	20	2,4	5,4	40	40	4,8	7,7	40	40
	A4	40	100	20	2,4	5,4	40	40	4,8	7,6	40	40
	C	40	100	20	2,4	5,4	40	40	4,8	7,7	40	40
	fvz	40	100	20	2,4	5,4	40	40	4,8	7,7	40	40
FZA 12 x 50 M8	gvz	50	110	20	4,3	7,5	50	45	8,3	9,2	50	45
	A4	50	110	20	4,3	7,5	50	45	8,3	7,6	50	45
	C	50	110	20	4,3	7,5	50	45	8,3	9,5	50	45
	fvz	50	110	20	4,3	7,5	50	45	8,3	9,2	50	45
FZA 14 x 40 M10	gvz	40	100	40	2,4	10,0	70	70	4,8	14,2	70	70
	A4	40	100	40	2,4	10,0	70	70	4,8	12,1	70	70
	C	40	100	40	2,4	10,0	70	70	4,8	14,2	70	70
	fvz	40	100	40	2,4	10,0	70	70	4,8	14,2	70	70
FZA 14 x 60 M10	gvz	60	130	40	5,7	14,6	60	55	10,9	14,6	60	55
	A4	60	130	40	5,7	12,1	60	55	10,9	12,1	60	55
	C	60	130	40	5,7	15,1	60	55	10,9	15,1	60	55
	fvz	60	130	40	5,7	14,6	60	55	10,9	14,6	60	55
FZA 18 x 80 M12	gvz	80	160	60	11,4	21,2	80	70	16,8	21,2	80	70
	A4	80	160	60	11,4	17,6	80	70	16,8	17,6	80	70
	C	80	160	60	11,4	21,9	80	70	16,8	21,9	80	70
	fvz	80	160	60	11,4	21,2	80	70	16,8	21,2	80	70
FZA 22 x 100 M16	gvz	100	200	100	16,4	39,5	100	100	23,4	39,5	100	100
	A4	100	200	100	16,4	35,2	100	100	23,4	35,2	100	100
	C	100	200	100	16,4	43,9	100	100	23,4	43,9	100	100
	fvz	100	200	100	16,4	39,5	100	100	23,4	39,5	100	100
FZA 22 x 125 M16	gvz	125	250	100	19,0	39,5	125	125	32,7	39,5	125	125
	A4	125	250	100	19,0	35,2	125	125	32,7	35,2	125	125
	C	125	250	100	19,0	43,9	125	125	32,7	43,9	125	125

¹⁾ Design according to EN 1992-4:2018 (for static resp. quasi-static loads). The partial 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⁾ For concrete strength classes above C20/25 higher permissible loads may be possible. We recommend to use our anchor design software C-FIX.

³⁾ In the case of combinations of tensile and shear loads, bending moments and reduced edge and axial spacings (anchor groups), the design must be carried out in accordance with the provisions of the complete ETA.