BOLT ANCHOR AN BZ PLUS



APPLICATION

Universal use for anchorage of heavy loads even in areas with cracked concrete.Suitable for anchoring pipes, chennels, brackets and support plates in closed environments to the exclusion of damp environments.

- No special drill required.
- Simple and quick mounting.
- Drive-in hammer zone for preventing any thread damage

SCOPE OF DELIVERY

Supplied with washer and hexagon nut.

INSTALLATION

1. Drill bore hole according to the minimum bore hole depth perpendicularly to the surface.
2. Remove dirt from hole.
3. Drive the anchor into concrete up to its embedment mark.
4. After tightening the anchor with a torque wrench Tinst (see torque indicated in the following tab), it may immediately be submitted to loading.

Note the instructions in the mounting manual!

TECHNICAL DATA

Standard anchoring depth:

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Type	M8	M10	M12	M16
Perm. load 1) tension C20/25 2) [kN]	2.4	4.3	7.6	11.9
C25/30 2) [kN]	2.6	4.7	8.3	13.1
C30/37 2) [kN]	2.9	5.2	9.3	14.5
C40/50 2) [kN]	3.4	6.0	10.8	16.8
C50/60 2) [kN]	3.7	6.6	11.8	18.5
Perm. load 1) oblique ≥ C20/25 2) [kN]	8.6 (5.0)3)	12.6 (6.5)3)	17.1 (8.5)3)	26.9 (23.6)3)
Perm. bending moment 1) [Nm]	13.1	26.9 (25.7)3)	46.9 (44.6)3)	119.4 (99.,9)3)
Min. thickness of component hmin ≥ [mm]	100	120	140	170
(3 hef) Charact. centre distance scr [mm]	138	180	210	255
(1.5 hef) Charact. edge distance ccr [mm]	69	90	105	127.5
Min. centre distance s at/edge distance c ≥ [mm]	40/70	45/70	60/100	60/100
Min. edge distance c at/centre distance s ≥ [mm]	40/80	45/90	60/140	60/180
Effective anchoring depth hef [mm]	46 (35)3)	60 (42)3)	70 (50)3)	85 (64)3)
Nominal diameter of drill d0 [mm]	8	10	12	16
Depth of bore hole h1 ≥ [mm]	60 (55)3)	75 (65)3)	90 (75)3)	110 (95)3)
Anchoring torque Tinst [Nm]	20 (15)3)	25 (30)3)	45 (50)4)	90 (100)3)
Perm. load 4) for fire exposure				
Perm. load R30 perm. F [kN]	1.3	2.2	3.2	6.0
Perm. load R60 perm. F [kN]	1.1	1.8	2.8	5.2
Perm. load R90 perm. F [kN]	0.8	1.4	2.4	4.4
Perm. load R120 perm. F [kN]	0.7	1.2	2.2	4.0

1) Loads for single anchors without influence of edge distances

2) Cracked concrete (option 1)

3) Edge/Centre distances in case of fire - respective approval is to be respected

Reduced anchoring depth:

M8	M10	M12	M16	
Perm. load 1) tension C20/25 2) [kN]	2.4	3.6	6.1	9.0
C25/30 2) [kN]	2.6	3.9	6.6	9.8
C30/37 2) [kN]	2.9	4.3	7.4	10.9
C40/50 2) [kN]	3.4	5.1	8.6	12.7
C50/60 2) [kN]	3.7	5.5	9.4	13.9
Perm. load 1) oblique ≥ C20/25 2) [kN]	7.0	10.4	14.5	21.6
Perm. bending moment 1) [Nm]	13.1	26.9	46.9	123.4
Min. thickness of component hmin ≥ [mm]	80	80	100	140
(3 hef) Charact. centre distance scr [mm]	105	120	150	195
(1,5 hef) Charact. edge distance ccr [mm]	52.5	60	75	97.5
Effective anchoring depth hef [mm]	35	40	50	65
Nominal diameter of drill d0 [mm]	8	10	12	16
Depth of bore hole h1 ≥ [mm]	49	55	70	90
Anchoring torque Tinst [Nm]	20	25	45	90

1) Loads for single anchors without influence of edge distances

2) Cracked concrete (option 1)

Type	Threadconnection	Standardanchoringdepthtfix	Reducedanchoringdepthtfix	Total length[mm]
8/10/21/75	M8	10	21	75
8/30/41/95	M8	30	41	95
10/10/30/90	M10	10	30	90
10/20/40/100	M10	20	40	100
10/30/50/110	M10	30	50	110
10/50/70/130	M10	50	70	130
12/15/35/110	M12	15	35	110
12/30/50/125	M12	30	50	125
12/50/70/145	M12	50	70	145
16/25/45/145	M16	25	45	145
16/50/70/170	M16	50	70	170

APPROVALS

Approval ETA-10/0259

FM-approval for M10, M12, M16

VdS-conform for all sizes

Shock approval of the Federal Office for Civil Defence, Bern (Switzerland)

Codice	Nome	Peso	Numero di pezzi
114135	M 8/10/21/ 75 mm *	0.03	100
114136	M 8/30/41/ 95 mm *	0.04	100
114140	M10/10/30/ 90 mm	0.06	50
114142	M10/30/50/110 mm	0.07	50
114143	M10/50/70/130 mm	0.08	50
114147	M12/15/35/110 mm	0.1	25
114148	M12/30/50/125 mm	0.11	25
114149	M12/50/70/145 mm	0.13	25
114155	M16/25/45/145 mm	0.23	20
114156	M16/50/70/170 mm	0.26	20