Stud Anchor

Fixing solution for concrete.

Material Properties : Galv. 5um | Stainless-steel alloy A2 or A4.

Application :

- Facades and wall cladding.
- Barriers and curtain wall.
- Hand rails and Balustrades.
- Fencing supports.
- Structural steel.

Technical Specification

Size (mm)

Product Code	Size	Anchor			Substrate	Fixture	
		Bolt Diameter	Max Torque	Bolt length	Drill Hole	Max Thickness	Hole Dia
TEC-TB80/08	M8	8	12	80	8	10	9
TEC-TB100/08	M8	8	12	100	8	12	9
TEC-TB120/08	M8	8	12	120	8	16	9
TEC-TB80/10	M10	10	20	80	10	12	11
TEC-TB90/10	M10	10	20	100	10	16	11
TEC-TB120/10	M10	10	20	120	10	20	11
TEC-TB80/12	M12	12	32	80	12	5	13
TEC-TB100/12	M12	12	32	100	12	16	13
TEC-TB1203/12	M12	12	32	120	12	20	13
TEC-TB120/16	M16	16	42	120	16	10	18
TEC-TB130/16	M16	16	42	130	16	15	18
TEC-TB150/16	M16	16	42	150	16	20	18

- Installation : Requirements : Suitable for pre and through fastening | Base Materials : Concrete C25/20 to C60/50

Feature and Benefits :

- High performance in cracked and uncracked concrete.
- Suitable to reduce embedment and avoid contact with reinforcement.
- Wide range of diameter (M8 to M16).
- Other sizes are upon request.

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Performance Data - Tension values

Size	Unit	M8	M10	M12	M16
Steel Failure					
Characteristics Resistance $N_{Rk,S}$	kN	17	29	44	67
Partial factor for steel failure		1.50			
Pullout Failure					
Effective anchorage depth hef	mm	45	60	70	85
Characteristics Resistance $N_{Rk,p}$	kN	6	10	16	26
Concrete Cone & Splitting Failure					
Minumum Concrete thickness hmin	mm	100	120	140	170
Factor for cone failure $K_1 = K_{Cr,N}$		7.7			
Characteristics Spacing $S_{cr,N}$		3 hef			
Characteristics edge distance $C_{cr,N}$		1.5 hef			

Characteristics Values of Shear Resistance

Steel Failure					
Characteristics Resistance $V_{Rk,S}$	kN	17.6	26	37	57
Partial factor for steel failure		1.25			
concrete pryout failure					
Factor for pryout failure K_8	mm	2.80	3.20	3.20	3.00
Effective embedment depth l_f	mm	45	60	70	85
Outside diameter of anchor dnom		8	10	12	16
Above details are for concrete grade C25/20. Increase the following factors for $N_{Rk,p}$ with other grades					
C30/25		1.12			
C37/30		1.22			
C45/35		1.32			
C50/40		1.41			
C55/45		1.5			
C60/50		1.58			

Permissible loads of Single Anchor

Tension Load N_{rec}	kN	4.53	6.6	7.6	12.3
Shear Load V_{rec}		6.8	10.3	12.7	16.8