

Loads, spacing and edge distance in concrete

Type	Concrete C20/25 – C50/60					Spacing		Edge distance		Min. thickness of structural part d [mm]	Max. torque T _{inst} ≤ [Nm]
	Tension load	Shear load		Bending moment							
	N _{per} [kN]	zinc plated V _{per} [kN]	A4 V _{per} [kN]	zinc plated M _{per} [Nm]	A4 M _{per} [Nm]	S _{cr} [mm]	S _{min} [mm]	C _{cr,N} [mm]	C _{min} [mm]		
M8	3,6	4,4	5,0	8,8	10,1	240	60	120	60	110	10
M10	4,8	7,2	7,8	16,5	18,8	270	70	135	70	120	20
M12	6,4	10,4	11,9	30,8	34,3	330	85	165	85	150	40
M16	9,9	19,8	22,4	79,1	88,8	380	95	190	95	160	60
M20	15,9	31,3	35,3	156,6	175,8	510	130	255	130	220	120
M24	23,8	45,6	50,8	273,6	306,6	630	160	315	160	300	150
M30*	60,0	60,0	60,0	642,0	402,0	700	280	350	140	330	400

If underrun the char. space or edge distance (C_{cr} or S_{cr}) the loads must be reduced. h_{min} / S_{min} and C_{min} shall not remain under the given minimum values.

* Not part of the ETA approval. Values according to former DIBt approval

Curing times in dry concrete

Temperature inside drill hole	[°C]	> -5	> 0	> +5	> +10	> +20
Min. curing time	[min]	360	180	90	40	20

Installation possible in dry or wet concrete.

Installation for anchor sizes M12 to M24 possible in holes filled with water (no sea water) as well.

For wet concrete curing time must be doubled.