

Table C1: Characteristic values for tension loads

Anchor size				M8	M10	M12	M16	M20	M24
Steel failure									
Characteristic resistance	Steel, zinc plated property class 5.8	$N_{Rk,s}$	[kN]	18	29	42	78	123	177
	Steel, zinc plated property class 8.8	$N_{Rk,s}$	[kN]	29	46	67	126	196	282
	Stainless steel A4 property class 70	$N_{Rk,s}$	[kN]	26	40	59	110	172	247
	Stainless steel A4 property class 80	$N_{Rk,s}$	[kN]	29	46	67	126	196	282
	High corrosion resistant steel HCR	$N_{Rk,s}$	[kN]	26	40	59	110	172	247
Combined pull-out and concrete failure									
Characteristic resistance in uncracked concrete C20/25 to C50/60									
Temperature range I		τ_{Rk}	[N/mm ²]	10	11	9,5	9,5	8,5	7,5
Temperature range II		τ_{Rk}	[N/mm ²]	10	11	9,5	8,0	7,0	5,5
Concrete cone failure									
Factor for k_1		$k_{ucr,N}$	[-]	11,0					
Edge distance		$c_{cr,N}$	[mm]	1,5 h_{ef}					
Spacing		$s_{cr,N}$	[mm]	3 h_{ef}					
Splitting									
Characteristic resistance		$N^0_{Rk,sp}$	[kN]	min [$N^0_{Rk,p}$; $N^0_{Rk,c}$]					
Edge distance		$c_{cr,sp}$	[mm]	1,5 h_{ef}	1 h_{ef}				
Spacing		$s_{cr,sp}$	[mm]	3 h_{ef}	2 h_{ef}				
Installation factor		γ_{inst}	[-]	1,2					

Table C2: Displacements under tension load

Anchor size				M8	M10	M12	M16	M20	M24
Tension load		N	[kN]	8	12	16	20	30	38
Displacement	δ_{N0}	[mm]		0,1	0,2	0,2	0,2	0,5	0,4
	$\delta_{N\infty}$	[mm]		0,5					

Chemical Anchor V**Performance**Characteristic values and displacements under **tension load****Annex C1**

Table C3: Characteristic values for shear loads

Anchor size				M8	M10	M12	M16	M20	M24	
Steel failure without lever arm										
Characteristic shear resistance	Steel, zinc plated property class 5.8	$V^0_{Rk,s}$	[kN]	9	14	21	39	61	88	
	Steel, zinc plated property class 8.8	$V^0_{Rk,s}$	[kN]	15	23	33	63	98	141	
	Stainless steel A4 property class 70	$V^0_{Rk,s}$	[kN]	13	20	29	55	86	124	
	Stainless steel A4 property class 80	$V^0_{Rk,s}$	[kN]	15	23	33	62	98	141	
	High corrosion resistant steel HCR	$V^0_{Rk,s}$	[kN]	13	20	29	55	86	124	
Ductility factor			k_7	[-]						0,8
Steel failure with lever arm										
Characteristic bending moment	Steel, zinc plated property class 5.8	$M^0_{Rk,s}$	[Nm]	19	37	65	166	325	561	
	Steel, zinc plated property class 8.8	$M^0_{Rk,s}$	[Nm]	30	60	105	266	519	898	
	Stainless steel A4 property class 70	$M^0_{Rk,s}$	[Nm]	26	52	92	233	454	785	
	Stainless steel A4 property class 80	$M^0_{Rk,s}$	[Nm]	30	60	105	266	519	898	
	High corrosion resistant steel HCR	$M^0_{Rk,s}$	[Nm]	26	52	92	233	454	785	
Pry-out failure										
Factor			k_8	[-]						2,0
Concrete edge failure										
Effective length of anchor			l_f	[mm]	80	90	110	125	170	210
Effective diameter of anchor			d_{nom}	[mm]	10	12	14	18	25	28
Installation factor			γ_{inst}	[-]						1,0

Table C4: Displacements under shear load

Anchor size				M8	M10	M12	M16	M20	M24
Shear load		V	[kN]	5	8	12	22	35	50
Displacement	δ_{V0}		[mm]	2	3	3	4	5	5
	$\delta_{V\infty}$		[mm]	4	5	5	6	7	7

Chemical Anchor V

Performance
Characteristic values and displacements under **shear load**

Annex C2