



CF 1000



A Brand like a friend

Technical information Epoxy-Resin-System

2K-

PERFORMANCE DATA / STANDARD APPLICATION IN CONCRETE

design values								
resin	Concrete		M 8	M 10	M 12	M 16	M 20	
tension loads	≥ C20/25	N _{Rk} [kN]	26,4	37,2	54,5	82,6	124,7	
		N _{Rd} [kN]	14,7	20,6	30,3	45,9	69,3	
safety factor for tension loads 1,8 acc. to ETAG								
share loads	steel quality 5.8	V _{Rk} [kN]	9,9	15,8	22,9	43,2	67,5	
		V _{Rd} [kN]	7,9	12,6	18,3	34,6	54,0	
		rec. torque	12,9	25,6	44,8	113,7	222,9	
	steel quality A4	V _{Rk} [kN]	13,8	22,1	32,0	60,5	94,5	
		V _{Rd} [kN]	8,9	14,1	20,5	38,8	60,6	
		rec. torque	12	23,9	41,9	106,7	207,9	
safety factor for share loads 1,56 acc. to ETAG								

recommended loads								
resin	Concrete		M 8	M 10	M 12	M 16	M 20	
recommended loads in every direction	≥ 20/25	F _{rec.} [kN]	10,5	14,7	21,6	32,8	49,5	

installation parameters								
edge distance	C _{cr,N}	[mm]	80	90	110	130	170	
min. edge distance	C _{min}	[mm]	40	50	60	70	90	
axial distance	S _{cr,N}	[mm]	160	180	220	250	340	
min. axial distance	S _{min}	[mm]	80	90	110	125	170	
anchorage depth	h _{ef}	[mm]	80	90	110	125	170	
minimum partthickness	h _{min}	[mm]	130	140	160	175	220	
thread diameter	d	[mm]	8	10	12	16	20	
drill diameter	d _B	[mm]	10	12	14	18	24	
hole diameter in part	d _{Bau}	[mm]	9	11	13,5	17,5	22	
tightening torque	T _{inst.}	[Nm]	10	20	40	60	120	

factor for wet or submerged concrete f _{wc}		
dry concrete	wet concrete	submerged concrete
1.0	0.9	0.6



CF 1000



A Brand like a friend

Technical information Epoxy-Resin-System

2K-

PERFORMANCE DATA / REBAR APPLICATION IN CONCRETE

parameter															
rebar diameter	D_{rebar}	[mm]	8	10	12	14	16	18	20	22	25	28	32	36	40
stress area	A_s	[mm ²]	50,3	78,5	113,1	153,9	201,1	254,502	314,2	380,182	490,9	615,8	804,2	1017,9	1256,6
tensile strength	f_{uk}	[N/mm ²]	550												
yield stress	f_{yk}	[N/mm ²]	500												
hole diameter	min D	[mm]	10	12	16	18	20	22	25	28	30	35	40	42	48
	max D	[mm]	12	14	18	20	22	25	28	30	32	37			
embedment depth	min h_{ef}	[mm]	80	90	110	115	125	150	170	190	210	260	310	340	370

bonding strength without influence of edge- and axial distance															
bonding strength ¹⁾	$f_{b,m}$	[N/mm ²]	23,1	23,1	23,1	23,1	23,1	21,5	20,1	18,9	17,4	16,2	14,9	13,8	12,9
bonding strength ²⁾	$f_{b,k}$	[N/mm ²]	15,7	15,7	15,7	15,7	15,7	14,6	13,6	12,8	11,8	11,0	10,1	9,4	8,8
bonding strength ³⁾	$f_{b,d}$	[N/mm ²]	7,3	7,3	7,3	7,3	7,3	6,8	6,3	5,9	5,5	5,1	4,7	4,4	4,1

1) $f_{b,m}$ = ultimate bonding strength

2) $f_{b,k}$ = characteristic value of the bonding strength

3) $f_{b,d}$ = design value of the bonding strength including the safety factor 2.16

factor of the concrete strength f_{sc}		
strength class	C20/25	0,83
	C25/30	0,92
	C30/37	1,00
	C40/50	1,15

factor for wet or submerged concrete f_{wc}		
dry concrete	wet concrete	submerged concrete
1.0	0.9	0.6

The basic anchorage length l_b can be calculated from

$$l_b = (\sigma \times f_{y,d}) / (4 \times f_{b,d} \times f_{sc})$$

with $f_{y,d}$ design yield strength of post installed rebar.