Declaration of Performance No.1343-CPR-M598-1

Injection Resin JF300PSF Polyester Resin Styrene Free
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Intended use or uses of the products according to EAD 330499-00-0601	
Generic type	Bonded Anchor
Base material	Non-cracked concrete C20/25 to C50/60 acc. EN 206-2:2003 The anchor may be installed in dry, wet and flooded holes
Batch number	Marked on individual tubes
Plating finish	Steel, zinc plated ≥ 5µm acc. To EN ISO 4042 Steel, Hot-dip galvanized ≥ 5µm acc. To EN ISO 1461 and EN ISO 10684
Steel elements	1] Galvanised carbon steel Grade 5.8, 8.8 and 10.9 to EN ISO 891-1 2] Stainless Steel 1.4401, 1.4404 or 1.4571 Property class 70 or 80 to EN ISO 3506 3] High corrosion resistant stainless steel to 1.4529, 1.4565
Durability	1] Dry internal conditions 2] Internal and external atmospheric exposure including industrial and marine environment, or exposure in permenantly damp internal conditions, if no particularly aggressive conditions exist. 3] Internal and external atmospheric exposure including industrial and marine environment, or exposure in permenantly damp internal conditions, and in other particularly aggressive conditions.
Loading	Static, quasi-static
ETA 15/0585 issued by	ZUS
On the basis of	EAD 330499-00-0601
Certificate of Conformity 1020-CPR-090-036534 issued by	ZUS
Under system	1
Temperature range(s)	-40°C to +40°C (Max. short term temp. +40°C and Max. long term temp. +24°C) - 40°C to +40°C (Max. short term temp. +80°C and Max. long term temp. +50°C)
Reaction to fire	Anchorage satisfies requirements for Class A1

Declared performances according to EAD 330499-00-0601

Essential Characteristics			Performance					
			M08	M10	M12	M16	M20	M24
Installation parameters								
d_o	Nominal diameter of drill bit	[mm]	10	12	14	18	22	26
d_f	Fixture clearance hole	[mm]	10	12	14	18	22	26
d_b	Brush diameter	[mm]	12	14	16	20	26	30
T_{inst}	Nominal torque moment	[mm]	10	20	40	60	120	150
$h_{ef,min}$	Minimum effective anchorage depth = 8d							
h_o	Depth of drill hole	[mm]	64	80	96	128	160	192
h_{min}	Minimum thickness of concrete member	[mm]	100	110	126	158	200	240
$S_{cr,N}$	Spacing	[mm]	192	240	288	384	480	576
$C_{cr,N}$	Edge Distance	[mm]	96	120	144	192	240	288
$h_{ef,max}$	Maximum effective anchorage depth = 12d							
h_o	Depth of drill hole	[mm]	96	120	144	192	240	288
h_{min}	Minimum thickness of concrete member	[mm]	126	150	174	222	280	336
$S_{cr,N}$	Spacing	[mm]	288	360	432	666	840	864
$C_{cr,N}$	Edge Distance	[mm]	144	180	216	333	420	432
S_{min}	Minimum spacing	[mm]	50	60	70	95	120	145
C_{min}	Minimum edged distance	[mm]	50	60	70	95	120	145
Tensile Steel failure								
$N_{Rk,s}$	Characteristic tensile resistance steel **Grade 5.8**	[kN]	18	29	42	79	123	177
$N_{Rk,s}$	Characteristic tensile resistance steel **Grade 8.8**	[kN]	29	46	67	126	196	282
$\gamma_{M,s}$	Partial safety factor	[-]	1.5					
$N_{Rk,s}$	Characteristic tensile resistance steel **Grade A4-70**	[kN]	26	41	59	110	172	247
$\gamma_{M,s}$	Partial safety factor	[-]	1.9					
$N_{Rk,s}$	Characteristic tensile resistance steel **Grade A4-80**	[kN]	29	46	67	126	196	282
$\gamma_{M,s}$	Partial safety factor	[-]	1.6					

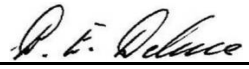
Essential Characteristics				Performance					
				M08	M10	M12	M16	M20	M24
$N_{Rk,s}$	Characteristic tensile resistance steel **1.4529**		[kN]	26	41	59	110	172	247
$\gamma_{M,s}$	Partial safety factor		[-]	1.5					
Combined pull-out and concrete cone failure in non-cracked concrete C20/25									
$\tau_{Rk,uncr}$	Temperature range 1: 40C°/24°C	Dry and wet concrete	[N/mm²]	8.0	7.0	7.0	7.0	7.0	6.0
$\gamma_{M,p}$		Safety factor	[-]	1.5					
$\tau_{Rk,uncr}$		Flooded bore hole	[N/mm²]	8.0	7.0	7.0	7.0	7.0	6.0
$\gamma_{M,p}$		Safety factor	[-]	1.8					
$\tau_{Rk,uncr}$	Temperature range 11: 80C°/50°C	Dry and wet concrete	[N/mm²]	6.5	6.0	6.0	6.0	6.0	6.0
$\gamma_{M,p}$		Safety factor	[-]	1.5					
$\tau_{Rk,uncr}$		Flooded bore hole	[N/mm²]	6.5	6.0	6.0	6.0	6.0	6.0
$\gamma_{M,p}$		Safety factor	[-]	1.8					
Ψ_c	Factor for C25/30 concrete		[-]	1.04					
Ψ_c	Factor for C30/37 concrete		[-]	1.08					
Ψ_c	Factor for C35/45 concrete		[-]	1.13					
Ψ_c	Factor for C40/50 concrete		[-]	1.15					
Ψ_c	Factor for C45/55 concrete		[-]	1.17					
Ψ_c	Factor for C50/60 concrete		[-]	1.19					
Splitting failure									
$C_{cr,sp}$	Critical edge distance (Splitting)		[mm]	$2.0*h_{ef}$			$1.5*h_{ef}$		
$S_{cr,sp}$	Critical spacing (Splitting)		[mm]	$2*C_{cr,sp}$					
$\gamma_{M,p}$	Partial safety factor (dry and wet concrete)		[-]	1.5					
$\gamma_{M,p}$	Partial safety factor (flooded bore hole)		[-]	1.8					
Displacement under tensile loading									
F	Service tensile loads in non-cracked concrete		[kN]	6.3	6.3	9.9	19.8	29.8	37.7
δ_{N0}	Short term displacement under tensile loads			0.1	0.1	0.2	0.5	0.6	0.8
$\delta_{N\infty}$	Long term displacement under tensile loads		[mm]	0.4	0.4	0.4	0.4	0.4	0.4
Shear steel failure without lever arm									
$V_{,Rk,s}$	Characteristic shear steel failure **Grade 5.8**		[kN]	9	15	21	39	61	88
$V_{,Rk,s}$	Characteristic shear steel failure **Grade 8.8**		[kN]	15	23	34	63	98	141
$\gamma m,s$	Partial safety factor		[-]	1.25					
$V_{,Rk,s}$	Characteristic shear steel failure **Grade A4-70**		[kN]	13	20	30	55	86	124
$\gamma m,s$	Partial safety factor		[-]	1.56					
$V_{,Rk,s}$	Characteristic shear steel failure **Grade A4-80**		[kN]	15	23	34	63	98	141
$\gamma m,s$	Partial safety factor		[-]	1.33					
$V_{,Rk,s}$	Characteristic shear steel failure **1.4529**		[kN]	13	20	30	55	86	124
$\gamma m,s$	Partial safety factor		[-]	1.25					
Shear steel failure with lever arm									
$M^0_{Rk,s}$	Characteristic bending moment **Grade 5.8**		[Nm]	19	37	66	166	325	561
$M^0_{Rk,s}$	Characteristic bending moment **Grade 8.8**		[Nm]	30	60	105	266	519	898
$\gamma m,s$	Partial safety factor		[-]	1.25					
$M^0_{Rk,s}$	Characteristic bending moment **Grade A4-70**		[Nm]	26	52	92	233	454	786
$\gamma m,s$	Partial safety factor		[-]	1.56					
$M^0_{Rk,s}$	Characteristic bending moment **Grade A4-80**		[Nm]	30	60	105	266	519	898
$\gamma m,s$	Partial safety factor		[-]	1.33					
$M^0_{Rk,s}$	Characteristic bending moment **1.4529**		[Nm]	26	52	92	233	454	786
$\gamma m,s$	Partial safety factor		[-]	1.25					
Concrete pryout failure									
k_8	Factor in EAD 330499-00-0601, Para 2.2.8, Table 2.6		[-]	2.0					
$\gamma M,p$	Partial safety factor		[-]	1.5					
Shear concrete edge failure									
l_{ef}	Effective anchorage length		[mm]	Effective Embedment Depth (h_{ef})					
$\gamma M,c$	Partial safety factor		[-]	1.5					
Displacement under shear load									
V	Service shear load in concrete		[kN]	5.2	8.3	12.0	22.4	35.0	50.4
δ_{v0}	Short term displacement under shear load		[mm]	0.1	0.1	0.2	0.4	0.8	1.5
$\delta V\infty$	Long term displacement under shear load		[mm]	0.2	0.2	0.3	0.6	1.2	2.3

Amendments	Date
ETAG changed to EAD	20/12/2017
Second temperature range added	20/09/2018
1.4529 stainless steel added	

The performances of the product identified by the above product codes are in conformity with the declared performance

This Declaration of performance is issued under the sole responsibility of JCP Construction Products

Signed for and on behalf of the manufacturers

Name and function	Place and date of issue	Signature
Brian Deluce	Teddington	
Technical Manager	20/09/2018	