Declaration of Performance No. 1020-CPD-030048

Injection Resin JF380P Polyester Resin
JCP Construction Products,
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Intended use or uses of the products according to EAD 330499-00-0601	
Generic type	Bonded injection type anchor for use in uncracked concrete
Base material	Non-cracked concrete C20/25 to C50/60 acc. EN 206-1:2000-12 The anchor may be installed in dry, wet and flooded holes
Batch number	Marked on individual tubes
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 1.4571Property 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 dampinternal conditions, if no particularly aggressive conditions exist 3] Internal and external atmospheric exposure including industrial and marine environments or exposure in permenantly damp internal internal conditions and in other particularly aggressive conditions
Loading	Static, quasi-static
ETA 13/0781 issued by	ZUS
On the basis of	EAD 330499-00-0601
Certificate of Conformity 1020-CPR-090-042481 issued by	ZUS
Under system	1
Temperature range(s)	-40°C to +80°C (max. short term temperature +80°C and Max. long term temperature +50°C)

Declared performances according to EAD 330499-00-0601

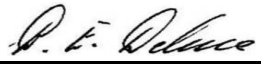
Essential Characteristics			Performance					
			M08	M10	M12	M16	M20	M24
Installation parameters								
d_o	Nominal diameter of drill bit	[mm]	10	12	14	18	22	26
d_f	Fixture clearance hole	[mm]	10	12	14	18	22	26
d_b	Brush diameter	[mm]	14	14	20	20	29	29
T_{inst}	Nominal torque moment	[mm]	10	20	40	80	150	200
$h_{ef,min}$	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_{min}	Minimum spacing	[mm]	35	40	50	65	80	96
C_{min}	Minimum edged distance	[mm]	35	40	50	65	80	96
$h_{ef,max}$	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_{min}	Minimum spacing	[mm]	35	40	50	65	80	96
C_{min}	Minimum edged distance	[mm]	35	40	50	65	80	96
Tensile Steel failure								
NRk,s	Characteristic tensile resistance steel **Grade 5.8**	[kN]	18	29	42	79	123	177
NRk,s	Characteristic tensile resistance steel **Grade 8.8**	[kN]	29	46	67	126	196	282
γM,s	Partial safety factor	[-]	1.5					
NRk,s	Characteristic tensile resistance steel **Grade 10.9**	[kN]	37	58	84	157	245	353
γM,s	Partial safety factor	[-]	1.4					
NRk,s	Characteristic tensile resistance steel **Grade A4-70**	[kN]	26	41	59	110	172	247
γM,s	Partial safety factor	[-]	1.9					
NRk,s	Characteristic tensile resistance steel **Grade A4-80**	[kN]	29	46	67	126	196	282
γM,s	Partial safety factor	[-]	1.6					
NRk,s	Characteristic tensile resistance steel **Grade 1.4529**	[kN]	26	41	59	110	172	247
γM,s	Partial safety factor	[-]	1.5					

Essential Characteristics			Performance						
			M08	M10	M12	M16	M20	M24	
Combined pull-out and concrete cone failure									
Characteristic bond resistance in non-cracked concrete C20/25									
τ_{Rk}	Dry and wet concrete	[N/mm²]	9.5	9.0	8.5	8.0	7.5	7.0	
$\gamma M,p$	Partial safety factor	[-]	1.8						
τ_{Rk}	Flooded hole	[N/mm²]	9.5	9.0	8.5	8.0	7.5	7.5	
$\gamma M,p$	Partial safety factor	[-]	1.8						
Ψ_c	Factor for C30/37 concrete	[-]	1.12						
Ψ_c	Factor for C40/45 concrete	[-]	1.19						
Ψ_c	Factor for C50/60 concrete	[-]	1.30						
Splitting failure									
$S_{cr,sp}$	Critical spacing (Splitting)	[mm]	$4.0h_{ef}$			$3.0h_{ef}$			
$C_{cr,sp}$	Critical edge distance (Splitting)	[mm]	$2.0h_{ef}$			$1.5h_{ef}$			
$\gamma M,p$	Partial safety factor	[-]	1.8						
Displacement under tensile loading									
Nu_{cr}	Service tensile loads in non-cracked concrete	[kN]	6.3	9.9	15.9	23.8	29.8	37.7	
$\delta N0$	Short term displacement under tensile loads	[mm]	0.1	0.2	0.3	0.5	0.7	0.9	
$\delta N\infty$	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	
$\gamma m,sV$	Partial safety factor	[-]	1.25						
$V_{,Rk,s}$	Characteristic shear steel failure **Grade 10.9**	[kN]	18	29	42	79	123	177	
$\gamma m,sV$	Partial safety factor	[-]	1.5						
$V_{,Rk,s}$	Characteristic shear steel failure **Grade A4-70**	[kN]	13	20	30	55	86	124	
$\gamma m,sV$	Partial safety factor	[-]	1.56						
$V_{,Rk,s}$	Characteristic shear steel failure **Grade A4-80**	[kN]	15	23	34	63	98	141	
$\gamma m,sV$	Partial safety factor	[-]	1.33						
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	
$\gamma m,sV$	Partial safety factor	[-]	1.25						
$M^0_{Rk,s}$	Characteristic bending moment **Grade 10.9**	[Nm]	37	75	131	333	649	1123	
$\gamma m,sV$	Partial safety factor	[-]	1.5						
$M^0_{Rk,s}$	Characteristic bending moment **Grade A4-70**	[Nm]	26	52	92	233	454	786	
$\gamma m,sV$	Partial safety factor	[-]	1.56						
$M^0_{Rk,s}$	Characteristic bending moment **Grade A4-80**	[Nm]	30	60	105	266	519	898	
$\gamma m,sV$	Partial safety factor	[-]	1.33						
$M^0_{Rk,s}$	Characteristic bending moment **1.4529**	[Nm]	26	52	92	233	454	786	
$\gamma m,sV$	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						
$\gamma M,c$	Partial safety factor	[-]	1.5						
Shear concrete edge failure									
l_{ef}	Effective anchorage length	[mm]	Effective Embedment Depth (h_{ef})						
Displacement under tension and shear load									
F	Tension load	[kN]	6.3	9.9	15.9	23.8	29.8	37.7	
δ_{N0}	Short term displacement	[mm]	0.1	0.2	0.3	0.5	0.7	0.9	
$\delta_{N\infty}$	Long term displacement	[mm]	0.4	0.4	0.4	0.4	0.4	0.4	
F	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	

Amendment	Date
ETAG changed to EAD	20/12/2017
Certificate of Conformity number changed	24/10/2018
Minimum Spacing and edge distance for maximum embedment changed	
Tensile displcement 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	23/10/2018	