



Declaration of Performance No. 1020-CPR-090-037417

Injection Resin JF375E and JF300E

JCP Construction Products,

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Intended use or uses of the products according to EAD 330499-00-0601										
Generic type			Bonded Anchor							
Base material			Cracked and 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 $\geq 5\mu\text{m}$ acc. To EN ISO 4042 Steel, Hot-dip galvanized $\geq 5\mu\text{m}$ acc. To EN ISO 1461 and EN ISO 10684							
Steel elements			1] Steel, EN 10087 or EN 10263 Property class 4.6, 5.8, 8.8 and 10.9 EN ISO 891-1 2] Stainless Steel A2-70, A4-70, A4-80, EN ISO 3506 3] HCR Steel Material: 1.4529, 1.4565, EN10088-1							
Durability			1] Dry Internal conditions 2] Internal and external atmospheric exposure including industrial and marine environment, or exposure in permanently damp internal conditions, if no particularly aggressive conditions exist. 3] Aggressive atmospheric conditions							
Loading			Static, quasi-static							
ETA 17/0011 issued by			ZUS							
On the basis of			EAD 330499-00-0601							
Certificate of Conformity 1020_CPR-090-037417 issued by			ZUS							
Under system			1							
Temperature range(s)			-40°C to +70°C (Max short term temperature +70°C and Max long term temperature +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	M30	
Installation parameters										
d_o	Nominal diameter of drill bit	[mm]	10	12	14	18	22	26	35	
d_f	Fixture clearance hole	[mm]	10	12	14	18	22	26	35	
d_b	Bruah diameter	[mm]	14	14	20	20	29	29	40	
$h_{ef,min}$	Minimum effective anchorage depth	[mm]	60	60	70	80	90	96	120	
$h_{ef,max}$	Maximum effective anchorage depth	[mm]	160	200	240	320	400	480	600	
h_o	Hole depth	[mm]	$h_{ef} + 5\text{mm}$							
h_{min}	Minimum thickness of concrete member	[mm]	$h_{ef} + 30\text{mm}$, min 100mm			$h_{ef} + 2*d_o$				
T_{inst}	Nominal torque moment	[mm]	10	20	40	80	120	160	200	
S_{min}	Minimum spacing	Minimum Embedment	[mm]	40	40	40	40	50	50	60
C_{min}	Minimum edged distance		[mm]	40	40	40	40	50	50	60
S_{min}	Minimum spacing	Maximum Embedment	[mm]	80	100	120	160	200	240	300
C_{min}	Minimum edged distance		[mm]	80	100	120	160	200	240	300
Tensile Steel failure										
$NR_{k,s}$	Characteristic tensile resistance steel Grade 5.8	[kN]	18	29	42	79	123	177	281	
$NR_{k,s}$	Characteristic tensile resistance steel Grade 8.8	[kN]	29	46	67	126	196	282	449	
$\gamma_{M,s}$	Partial safety factor		1.5							
$NR_{k,s}$	Characteristic tensile resistance steel Grade A4-70	[kN]	26	41	59	110	172	247	393	
$\gamma_{M,s}$	Partial safety factor		1.9							
$NR_{k,s}$	Characteristic tensile resistance steel Grade A4-80	[kN]	29	46	67	126	196	282	449	
$\gamma_{M,s}$	Partial safety factor		1.6							

			M08	M10	M12	M16	M20	M24	M30
Pul out failure in C20/25 concrete									
	Characteristic bond resistance in non-cracked concrete								
$\tau_{Rk,ucr}$	Dry, wet and flooded concrete	[N/mm ²]	14	13	13	12	12	11	9
$\gamma_{M,p}$	Partial safety factor	[-]	1.5						
$\Psi_{cC25/30}$	Factor for concrete C25/30	[-]	1.02						
$\Psi_{cC30/37}$	Factor for concrete C30/37	[-]	1.04						
$\Psi_{cC35/45}$	Factor for concrete C35/45	[-]	1.06						
$\Psi_{cC40/50}$	Factor for concrete C40/50	[-]	1.07						
$\Psi_{cC45/55}$	Factor for concrete C45/55	[-]	1.08						
$\Psi_{cC50/60}$	Factor for concrete C50/60	[-]	1.09						
Combined pull-out and concrete cone failure in cracked concrete									
	Characteristic bond resistance in cracked concrete								
$\tau_{Rk,ucr}$	Dry, wet and flooded concrete	[N/mm ²]	8	8	7.5	7.5	7	7	5
$\gamma_{M,p}$	Partial safety factor	[-]	1.5						
$\Psi_{cC25/30}$	Factor for concrete C25/30	[-]	1.02						
$\Psi_{cC30/37}$	Factor for concrete C30/37	[-]	1.04						
$\Psi_{cC35/45}$	Factor for concrete C35/45	[-]	1.06						
$\Psi_{cC40/50}$	Factor for concrete C40/50	[-]	1.07						
$\Psi_{cC45/55}$	Factor for concrete C45/55	[-]	1.08						
$\Psi_{cC50/60}$	Factor for concrete C50/60	[-]	1.09						
Splitting failure									
$S_{cr,sp}$	Critical spacing (Splitting)	[mm]	4.0 $\cdot h_{ef}$						
$C_{cr,sp}$	Critical edge distance (Splitting)	[mm]	2.0 $\cdot h_{ef}$						
$\gamma_{M,sp}$	Partial safety factor		1.8						
Shear steel failure without bending arm									
$V_{iRk,s}$	Characteristic shear steel failure Grade 5.8	[kN]	9	15	21	39	61	88	140
$V_{iRk,s}$	Characteristic shear steel failure Grade 8.8	[kN]	15	23	34	63	98	141	224
$\gamma_{M,sv}$	Partial safety factor	[-]	1.25						
$V_{iRk,s}$	Characteristic shear steel failure Grade A4-70	[kN]	13	20	30	55	86	124	196
$\gamma_{M,sv}$	Partial safety factor	[-]	1.56						
$V_{iRk,s}$	Characteristic shear steel failure Grade A4-80	[kN]	15	23	34	63	98	141	224
$\gamma_{M,sv}$	Partial safety factor	[-]	1.33						
$V_{iRk,s}$	Characteristic shear steel failure 1.4529	[kN]	13	20	30	55	86	124	196
$\gamma_{M,sv}$	Partial safety factor	[-]	1.25						
$V_{iRk,s}$	Characteristic shear steel failure 1.4565	[kN]	13	20	30	55	86	124	196
$\gamma_{M,sv}$	Partial safety factor	[-]	1.33						
Shear steel failure with bending arm									
$M^0_{Rk,s}$	Characteristic bending moment Grade 5.8	[Nm]	19	37	66	166	325	561	1125
$M^0_{Rk,s}$	Characteristic bending moment Grade 8.8	[Nm]	30	60	105	266	519	898	1799
$\gamma_{M,sv}$	Partial safety factor	[-]	1.25						
$M^0_{Rk,s}$	Characteristic bending moment Grade A4-70	[Nm]	26	52	92	233	454	786	1574
$\gamma_{M,sv}$	Partial safety factor	[-]	1.56						
$M^0_{Rk,s}$	Characteristic bending moment Grade A4-80	[Nm]	30	60	105	266	519	898	1799
$\gamma_{M,sv}$	Partial safety factor	[-]	1.33						
$M^0_{Rk,s}$	Characteristic bending moment 1.4529	[Nm]	15	23	34	63	98	141	224
$\gamma_{M,sv}$	Partial safety factor	[-]	1.33						
$M^0_{Rk,s}$	Characteristic bending moment 1.4565	[Nm]	15	23	34	63	98	141	224
$\gamma_{M,sv}$	Partial safety factor	[-]	1.56						
MORk,s									
k_B	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})						
$\gamma_{M,c}$	Partial safety factor	[-]	1.5						

Displacement under Tensile and Shear loading									
Non_cracked concrete									
F	Tensile load	[kN]	11.9	14.3	19	23.8	35.7	35.7	45.2
δN_0	Short term displacement under tensile loads	[mm]	0.3	0.3	0.3	0.4	0.4	0.5	0.5
δN_∞	Long term displacement under tensile loads	[mm]	0.6	0.6	0.6	0.6	0.6	0.6	0.6
F	Shear Load	[kN]	3.5	5.5	8.0	15.0	23.3	33.6	53.4
δV_0	Short term displacement under Shear loads	[mm]	2.5	2.5	2.5	2.5	2.5	2.5	2.5
δV_∞	Long term displacement under Shear loads	[mm]	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Cracked concrete									
F	Tensile load in concrete	[kN]	5.7	9.5	14.3	16.7	23.8	28.6	28.6
δN_0	Short term displacement under shear load	[mm]	2.0	2.0	2.0	2.0	2.0	2.0	2.0

Amendments	Date
Change of ETA Number	27/01/2017
Change of DOP Number	
M8, and M30 in flooded holes included	
ETAG changed to EAD	18/12/2017
Torque ammended	05/09/2018
Deep Embedment Min Edge and Spacing added	
High corrosion steel added	
Reaction to fire 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	05/09/2018	