



# Declaration of Performance No. 1488-CPD-0359/W

Injection Resin JFV380SF, JFV300SF & JFEA410SFW Vinylester Resin  
 JCP Construction Products,  
 Unit 14 Teddington Business Park, Station Rd, Teddington, Middlesex TW11 9BQ  
 Telephone +44 (0)208 943 1800

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							
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 1.457 Property class 70 or 80 to EN ISO 3506							
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							
Loading		Static, quasi-static							
ETA 15/0704 issued by									
		ZUS							
On the basis of									
		330499-00-0601							
Certificate of Conformity 1020_CPR-909-034765 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	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
$h_{ef}$	Effective anchorage depth	[mm]	$h_{ef,min} = 8d, h_{ef,max} = 20d$						
$h_{min}$	Minimum thickness of concrete member	[mm]	$h_{ef} + 30mm, \min 100mm$				$h_{ef} + 2 \cdot d_o$		
$T_{inst}$	Nominal torque moment	[mm]	10	20	40	80	150	200	275
$S_{min}$	Minimum spacing	[mm]	$0.5 \cdot h_{ef}$						
$C_{min}$	Minimum edged distance	[mm]	$0.5 \cdot h_{ef}$						
Tensile Steel failure									
NRk,s	Characteristic tensile resistance steel <b>Grade 5.8</b>	[kN]	18	29	42	79	123	177	281
NRk,s	Characteristic tensile resistance steel <b>Grade 8.8</b>	[kN]	29	46	67	126	196	282	449
$\gamma_{M,s}$	Partial safety factor		1.5						
NRk,s	Characteristic tensile resistance steel <b>Grade A4-70</b>	[kN]	26	41	59	110	172	247	393
$\gamma_{M,s}$	Partial safety factor		1.9						
NRk,s	Characteristic tensile resistance steel <b>Grade A4-80</b>	[kN]	29	46	67	126	196	282	449
$\gamma_{M,s}$	Partial safety factor		1.6						
Combined pull-out and concrete cone failure in non-cracked concrete									
Characteristic bond resistance in non-cracked concrete C20/25									
$\tau_{Rk,ucr}$	Dry and wet concrete	[N/mm <sup>2</sup> ]	11	10	9.5	9.0	8.5	8.0	5.5
$\gamma_{M,p}$	Partial safety factor	[-]	1.8						
$\tau_{Rk,ucr}$	Flooded concrete	[N/mm <sup>2</sup> ]	9.0	8.0	7.5	7.0	7.0	6.0	
$\gamma_{M,p}$	Partial safety factor	[-]	2.1						
$\Psi_{cC50/60}$	Factor for concrete C50/60	[-]	1.0						

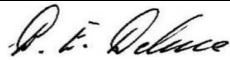
			M08	M10	M12	M16	M20	M24	M30
Combined pull-out and concrete cone failure in cracked concrete									
<b>Characteristic bond resistance in cracked concrete C20/25</b>									
$\tau_{Rk,cr}$	Dry and wet concrete	[N/mm <sup>2</sup> ]	/	5.0	5.0	5.0	4.5	4.5	/
$\gamma_M$	Partial safety factor	[-]	1.8						
$\tau_{Rk,cr}$	Flooded concrete	[N/mm <sup>2</sup> ]	/	5.0	5.0	5.0	4.5	4.5	/
$\gamma_M$	Partial safety factor	[-]	2.1						
<b>Factor for Cracked concrete</b>									
$\Psi_{cC30/37}$	Increasing factor for concrete C30/37	[-]	/	1.12			/		
$\Psi_{cC40/50}$	Increasing factor for concrete C40/50	[-]	/	1.23			/		
$\Psi_{cC50/60}$	Increasing factor for concrete C50/60	[-]	/	1.30			/		
<b>Splitting failure</b>									
$S_{cr,sp}$	Critical spacing (Splitting)	[mm]	3.0h <sub>ef</sub>						
$C_{cr,sp}$	Critical edge distance (Splitting)	[mm]	1.5h <sub>ef</sub>						
<b>Shear steel failure without bending arm</b>									
$V_{iRk,s}$	Characteristic shear steel failure <b>Grade 5.8</b>	[kN]	9	15	21	39	61	88	140
$V_{iRk,s}$	Characteristic shear steel failure <b>Grade 8.8</b>	[kN]	15	23	34	63	98	141	224
$\gamma_m$	Partial safety factor	[-]	1.25						
$V_{iRk,s}$	Characteristic shear steel failure <b>Grade A4-70</b>	[kN]	13	20	30	55	86	124	196
$\gamma_m$	Partial safety factor	[-]	1.56						
$V_{iRk,s}$	Characteristic shear steel failure <b>Grade A4-80</b>	[kN]	15	23	34	63	98	141	224
$\gamma_m$	Partial safety factor	[-]	1.33						
<b>Shear steel failure with bending arm</b>									
$M^0_{Rk,s}$	Characteristic bending moment <b>Grade 5.8</b>	[Nm]	19	37	66	166	325	561	1125
$M^0_{Rk,s}$	Characteristic bending moment <b>Grade 8.8</b>	[Nm]	30	60	105	266	519	898	1799
$\gamma_m$	Partial safety factor	[-]	1.25						
$M^0_{Rk,s}$	Characteristic bending moment <b>Grade A4-70</b>	[Nm]	26	52	92	233	454	786	1574
$\gamma_m$	Partial safety factor	[-]	1.56						
$M^0_{Rk,s}$	Characteristic bending moment <b>Grade A4-80</b>	[Nm]	30	60	105	266	519	898	1799
$\gamma_m$	Partial safety factor	[-]	1.33						
<b>Concrete pryout failure</b>									
k	Factor in EAD 330499-00-0601, Para. 2.2.8, Table 2.6	[-]	2.0						
$\gamma_M$	Partial safety factor	[-]	1.5						
<b>Shear concrete edge failure</b>									
$l_{ef}$	Effective anchorage length	[mm]	Effective Embedment Depth (h <sub>ef</sub> )						
$\gamma_M$	Partial safety factor	[-]	1.5						
<b>Displacement under Tensile and Shear loading</b>									
<b>Non_cracked concrete</b>									
F	Tensile load	[kN]	6.3	7.9	11.9	15.9	23.8	29.8	45.6
$\delta N_0$	Short term displacement under tensile loads	[mm]	0.3	0.3	0.3	0.3	0.4	0.5	0.5
$\delta N_\infty$	Long term displacement under tensile loads	[mm]	0.5	0.5	0.5	0.5	0.5	0.5	0.5
F	Shear Load	[kN]	3.1	5.0	7.2	13.5	21.0	30.3	48.0
$\delta V_0$	Short term displacement under Shear loads	[mm]	1.5	1.5	1.5	1.5	2.0	2.5	2.5
$\delta V_\infty$	Long term displacement under Sheare loads	[mm]	2.3	2.3	2.3	2.3	3.0	3.8	3.8
<b>Cracked concrete</b>									
F	Tensile load in concrete	[kN]	/	5.1	7.4	13.1	20.5	24.6	/
$\delta N_0$	Short term displacement under shear load	[mm]	/	0.4	0.7	0.7	0.7	0.6	/

Amendments	Date
Change of ETA Number Cracked concrete added Change of issuing body M8, M20, M24 and M30 included Flooded holes included	04/01/2016
ETAG changed to EAD	19/12/2017

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	19/12/2017	