



Intended use or uses of the products according to EAD 330232-00-0601	
Generic type	Screw Anchor
Base material	Cracked and Non-cracked concrete C20/25 to C50/60 acc. EN 206-2:2003
Batch Number	Marked on individual boxes
Material	
Finish	Zinc plated and clear passivated M8, M10 & M12 Min 5µm Mechanical galvanised M14 & M16, 20 -25µm
Durability	Zinc Plated use in dry internal conditions and Galvanised in areas not subjected to aggressive corrosion conditions.
Loading	Static, quasi-static
Fire Resistance	120mins
Fire Reaction	According to TR020
ETA 15/0040 issued by	DIBt
On the basis of	EAD 330232-00-0601
Certificate of Conformity 0679-CPR-1041 issued by	CSTB
Under system	1

Declared performances according to EAD 330232-00-0601							
Essential Characteristics		Performance					
		M08	M10	M12	M14	M16	
<b>Installation parameters</b>							
$d_o$	Nominal diameter of drill bit	[mm]	8	10	12	14	16
$d_s$	Outside diameter of thread	[mm]	10	12	14	16	18
A/F	Width across flats	[mm]	15	17	19	24	27
$d_f$	Fixture clearance hole	[mm]	12	14	16	18	20
$h_{nom}$	Overall anchor embedment depth	[mm]	75	85	95	110	120
$h_{ef}$	Effective anchorage depth	[mm]	55	62	69	79	86
$h_1$	Depth of drill hole to deepest point	[mm]	90	100	110	130	145
$h_{min}$	Minimum thickness of concrete member	[mm]	120	125	140	170	190
$T_{inst}$	Setting torque	[Nm]	40	60	80	90	100
$S_{min}$	Minimum spacing	[mm]	50	60	70	80	90
$C_{min}$	Minimum edged distance	[mm]	50	60	70	80	90
<b>Tensile Steel failure</b>							
$N_{Rk,s}$	Characteristic tensile steel failure	[kN]	44.2	70.1	101.2	140	183.9
$\gamma_{M,s}$	Partial safety factor	[-]	1.4				
<b>Pull-out failure</b>							
$NR_{k,p,cr}$	Characteristic tensile load in cracked concrete C20/25	[kN]	7.5	12	16	20	25
$NR_{k,p,ucr}$	Characteristic tensile load in non-cracked concrete C20/25	[kN]	12	16	20	35	40
$\gamma_{M,p}$	Partial safety factor (Includes $\gamma_2$ )	[-]	1.8				
$S_{cr,N}$	Critical spacing	[mm]	165	186	207	237	258
$C_{cr,N}$	Critical edge distance	[mm]	82.5	93	103.5	119	129
$\Psi_{cC30/37}$	Increasing factor for concrete C30/37	[-]	1.17			1.22	
$\Psi_{cC40/50}$	Increasing factor for concrete C40/50	[-]	1.32			1.41	
$\Psi_{cC50/60}$	Increasing factor for concrete C50/60	[-]	1.42			1.55	
<b>Splitting for minimum thickness of concrete member</b>							
$h_{min}$	Minimum thickness of concrete	[mm]	120	125	140	170	190
$S_{cr,sp}$	Critical spacing (Splitting)	[mm]	176	190	214	250	260
$C_{cr,sp}$	Critical edge distance (Splitting)	[mm]	88	95	107	125	130
<b>Concrete cone failure</b>							
$h_{ef}$	Effective anchorage depth	[mm]	55	62	69	79	86
$S_{cr,N}$	Critical spacing	[mm]	165	186	207	237	258
$C_{cr,N}$	Critical edge distance	[mm]	82.5	93	103.5	119	129

Displacement under tensile loading							
N	Tensile loads	[kN]	4.8	6.3	7.9	13.9	15.9
$\delta N_0$	Short term displacement under tensile loads	[mm]	0.17	0.2	0.23	0.7	0.46
$\delta N_\infty$	Long term displacement under tensile loads	[mm]	1.75	1.88	1.82	1.54	1.0
Displacement under shear loading							
V	Shear loads	[kN]	11.3	18.4	22.7	31.9	33.5
$\delta V_0$	Short term displacement under shear loads	[mm]	1.61	1.53	1.94	2.74	2.66
$\delta \zeta_\infty$	Long term displacement under shear loads	[mm]	2.42	2.3	2.92	4.1	3.99
Shear steel failure							
$V_{Rk,s}$	Characteristic shear steel failure	[kN]	28.5	46.4	57.2	80.4	84.4
$M_{Rk,s}^0$	Characteristic bending moment	[Nm]	40	80	138	224	338
$\gamma M_s$	Partial safety factor	[-]	1.5				
Concrete pryout failure							
$k_3$	Factor in equation (16) of CEN/TS 1992-4-4, 6.2.2.3	[-]	1.0	2.0			
$\gamma M_{cp}$	Partial safety factor	[-]	1.8				
Shear concrete edge failure							
$l_f$	Effective length of anchor in shear loading	[mm]	55	62	69	79	86
Characteristic Tensile Fire Resistance in cracked or non-cracked concrete C20/25 to C50/60							
$N_{Rk,s,fi30}$	Fire Resistance duration = 30 mins	[kN]	0.4	1.1	2.0	2.8	3.7
$N_{Rk,s,fi60}$	Fire Resistance duration = 60 mins	[kN]	0.4	0.9	1.5	2.1	2.8
$N_{Rk,s,fi90}$	Fire Resistance duration = 90 mins	[kN]	0.3	0.7	1.3	1.8	2.4
$N_{Rk,s,fi120}$	Fire Resistance duration = 120 mins	[kN]	0.2	0.6	1.0	1.4	1.8
$S_{cf,N}$	Characteristic Spacing	[mm]	4 x $h_{ef}$				
$C_{cf,N}$	Characteristic Edge Distance	[mm]	2 x $h_{ef}$				
Characteristic Shear Fire Resistance without lever arm in cracked or non-cracked concrete C20/25 to C50/60							
$V_{Rk,s,fi30}$	Fire Resistance duration = 30 mins	[kN]	0.4	1.1	2.0	2.8	3.7
$V_{Rk,s,fi60}$	Fire Resistance duration = 60 mins	[kN]	0.4	0.9	1.5	2.1	2.8
$V_{Rk,s,fi90}$	Fire Resistance duration = 90 mins	[kN]	0.3	0.7	1.3	1.8	2.4
$V_{Rk,s,fi120}$	Fire Resistance duration = 120 mins	[kN]	0.2	0.6	1.0	1.4	1.8
Characteristic Tensile Fire Resistance with lever arm in cracked or non-cracked concrete C20/25 to C50/60							
$M_{Rk,s,fi30}^0$	Fire Resistance duration = 30 mins	[kN]	0.5	1.5	3.4	5.6	8.4
$M_{Rk,s,fi60}^0$	Fire Resistance duration = 60 mins	[kN]	0.4	1.3	2.6	4.2	6.3
$M_{Rk,s,fi90}^0$	Fire Resistance duration = 90 mins	[kN]	0.3	1	2.2	3.6	5.5
$M_{Rk,s,fi120}^0$	Fire Resistance duration = 120 mins	[kN]	0.2	0.8	1.7	2.8	4.2

The previous performance data relates to the following product codes

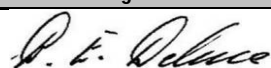
d	Marking $d_o/L$	L [mm]	$t_{fix}$ [mm]	Product Code
M8	APT8x80	80	5	JAB08/10080CE
	APT8x100	100	25	JAB08/10100CE
	APT8x130	130	55	JAB08/10130CE
	APT8x150	150	75	JAB08/10150CE
M10	APT10x100	100	15	JAB10/12100CE
	APT10x130	130	45	JAB10/12130CE
	APT10x150	150	65	JAB10/12150CE
M12	APT12x100	100	5	JAB12/14100CE
	APT12x130	130	35	JAB12/14130CE
	APT12x150	150	55	JAB12/14150CE
	APT12x200	200	105	JAB12/14200CE
M14	APT14x130	130	20	JAB14/16130CE
	APT14x150	150	40	JAB14/16150CE
	APT14x200	200	90	JAB14/16200CE
M16	APT16x150	150	30	JAB16/18150CE
	APT16x200	200	80	JAB16/18200CE

Amendments		
[1]	ETAG changed to EAD	06/11/2017

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	06/11/2017	