

Declaration of Performance No. 1343-CPR-5564



Drop In Anchor ADB / DSS
 JCP Construction Products,
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Intended use or uses of the products according to ETAG 001 Part 6	
Generic type	Deformation controlled expansion anchor
Base material	Cracked and Non-cracked concrete C20/25 to C50/60 (EN 206) and precast, prestressed hollow core slabs for multiple point fixings for non-structural applications
Batch Number	Marked on individual boxes
Material	Zinc plated carbon steel for dry internal conditions Stainless Steel (A4) for internal and external use without particularly aggressive conditions
Fire Resistance	120mins
Fire Reaction	ETAG 001 Annex C
ETA 18/0213 issued by	DIBt
On the basis of	ETAG 001 Part 6
Certificate of Conformity 1343-CPR-M 556-4/07.15 issued by	Staalische Materialprüfungsanstalt Darmstadt
Under system	2+

Declared performances according to ETAG 001 Parts 1 and 6

Essential Characteristics			Performance				
			M6	M8	M10	M12	M16
Installation parameters for $h_{ef} \geq 30$ mm in solid concrete							
d_o	Nominal diameter of drill bit	[mm]	8	10	12	15	20
d_f	Fixture clearance hole	[mm]	7	9	12	14	18
h_{ef}	Effective anchorage depth	[mm]	30	30	40	50	65
L_{th}	Available thread length	[mm]	13	13	15	18	23
L_{smin}	Minimum screwing depth	[mm]	7	9	11	13	18
h_o	Depth of drill hole	[mm]	30	30	40	50	65
T_{inst}	Max recommended torque moment	[mm]	4	8	15	35	60
Steel, zinc plated							
h_{min}	Minimum thickness of concrete member	[mm]	100	100	120	130	160
s_{min}	Minimum spacing	[mm]	55	60	80	120	150
c_{min}	Minimum edge distance	[mm]	95	95	135	165	200
Stainless Steel, A4							
h_{min}	Minimum thickness of concrete member	[mm]	100	100	130	140	160
s_{min}	Minimum spacing	[mm]	50	60	100	120	150
c_{min}	Minimum edge distance	[mm]	80	95	135	165	200
Installation parameters for $h_{ef} 25$ mm in solid concrete							
d_o	Nominal diameter of drill bit	[mm]		10	12	15	
d_f	Fixture clearance hole	[mm]		9	12	14	
h_{ef}	Effective anchorage depth	[mm]		25	25	25	
L_{th}	Available thread length	[mm]		12	12	12	
L_{smin}	Minimum screw-in depth	[mm]		8	10	12	
h_o	Depth of drill hole	[mm]		25	25	25	
T_{inst}	Max recommended torque moment	[mm]		8	15	35	
S_{cr}	Spacing	[mm]		180	170	170	
C_{cr}	Edge Distance	[mm]		90	85	85	
Steel, zinc plated							
$h_{min,1}$	Minimum thickness of concrete member	[mm]			80		
s_{min}	Minimum spacing	[mm]		70	70	100	
c_{min}	Minimum edge distance	[mm]		100	100	130	
Steel, zinc plated							
$h_{min,2}$	Standard thickness of concrete member	[mm]			100		
s_{min}	Minimum spacing	[mm]		50	60	100	
c_{min}	Minimum edge distance	[mm]		100	100	110	

Essential Characteristics			Performance				
			M6	M8	M10	M12	M16
Installation parameters for h_{ef} 25 mm in precast and pre-stressed hollow core slabs C30/37 to C50/60							
S_{min}	Minimum spacing	[mm]			200		
C_{min}	Minimum edge distance	[mm]			150		
a_p	Distance between anchor position and pre-stressed steel	[mm]			50		
Load in any direction $h_{ef} \geq 30$ mm in solid concrete slabs							
F_{Rk}^o	Characteristic resistance in concrete C20/25 to C50/60	[kN]	3.0	5.0	6.0	6.0	16
γ_M	Partial safety factor	[-]	1,8	2,16	2,16	1,8	1,8
S_{cr}	Spacing	[mm]	130	180	170	170	400
C_{cr}	Edge distance	[mm]	65	90	85	85	200
Shear Load with lever arm, steel zinc plated							
$M_{Rk,s}^o$	Characteristic resistance, steel 4.6	[Nm]	6,1	15	30	52	133
γ_{Ms}	Partial safety factor	[-]	1,67				
$M_{Rk,s}^o$	Characteristic resistance, steel 4.8	[Nm]	6,1	15	30	52	133
γ_{Ms}	Partial safety factor	[-]	1,25				
$M_{Rk,s}^o$	Characteristic resistance, steel 5.6	[Nm]	7,6	19	37	65	166
γ_{Ms}	Partial safety factor	[-]	1,67				
$M_{Rk,s}^o$	Characteristic resistance, steel 5.8	[Nm]	7,6	19	37	65	166
γ_{Ms}	Partial safety factor	[-]	1,25				
$M_{Rk,s}^o$	Characteristic resistance, steel 8.8	[Nm]	12	30	60	105	266
γ_{Ms}	Partial safety factor	[-]	1,25				
Shear Load with lever arm, stainless steel							
$M_{Rk,s}^o$	Characteristic resistance, Property class 70	[Nm]	11	26	52	92	233
γ_{Ms}	Partial safety factor	[-]	1,56				
$M_{Rk,s}^o$	Characteristic resistance, property class 80	[Nm]	12	30	60	105	266
γ_{Ms}	Partial safety factor	[-]	1,33				
Load in any direction h_{ef} 25 mm in solid concrete slabs							
F_{Rk}^o	Characteristic resistance in concrete C12/15 and C16/20	[kN]		2.5	3.5	3.5	
F_{Rk}^o	Characteristic resistance in concrete C12/15 and C16/21	[kN]		4.0	4.5	4.5	
γ_M	Partial safety factor	[-]		1.5			
S_{cr}	Spacing	[mm]		75	75	75	
C_{cr}	Edge distance	[mm]		38	38	38	
Shear Load with lever arm, steel zinc plated							
$M_{Rk,s}^o$	Characteristic resistance, steel 4.6	[Nm]		15	30	52	
γ_{Ms}	Partial safety factor	[-]		1,67			
$M_{Rk,s}^o$	Characteristic resistance, steel 4.8	[Nm]		15	30	52	
γ_{Ms}	Partial safety factor	[-]		1,25			
$M_{Rk,s}^o$	Characteristic resistance, steel 5.6	[Nm]		19	37	65	
γ_{Ms}	Partial safety factor	[-]		1,67			
$M_{Rk,s}^o$	Characteristic resistance, steel 5.8	[Nm]		19	37	65	
γ_{Ms}	Partial safety factor	[-]		1,25			
$M_{Rk,s}^o$	Characteristic resistance, steel 8.8	[Nm]		30	60	105	
γ_{Ms}	Partial safety factor	[-]		1,25			
Load in any direction h_{ef} 25 mm in precast and pre-stressed hollow core slabs C30.37 to C50/60							
d_b	Flange thickness	[mm]		$\geq 35 (30)^{(1)}$			
F_{Rk}^o	Characteristic resistance in concrete C12/15 and C16/21	[kN]		4.0	4.5	4.5	
γ_M	Partial safety factor	[-]		1.5			
S_{cr}	Spacing	[mm]		200			
C_{cr}	Edge distance	[mm]		150			
Shear Load with lever arm, steel zinc plated							
$M_{Rk,s}^o$	Characteristic resistance, steel 4.6	[Nm]		15	30	52	
γ_{Ms}	Partial safety factor	[-]		1,67			
$M_{Rk,s}^o$	Characteristic resistance, steel 4.8	[Nm]		15	30	52	
γ_{Ms}	Partial safety factor	[-]		1,25			
$M_{Rk,s}^o$	Characteristic resistance, steel 5.6	[Nm]		19	37	65	
γ_{Ms}	Partial safety factor	[-]		1,67			
$M_{Rk,s}^o$	Characteristic resistance, steel 5.8	[Nm]		19	37	65	
γ_{Ms}	Partial safety factor	[-]		1,25			
$M_{Rk,s}^o$	Characteristic resistance, steel 8.8	[Nm]		30	60	105	
γ_{Ms}	Partial safety factor	[-]		1,25			

⁽¹⁾ The anchor may be set in a flange thickness of 30mm if the borehole does not cut into the hollow core

Characteristic values under fire exposure in concrete C20/25 to C50/60.											
Anchor size				M6x30	M8x30	M10x40	M12x50	M16x65			
Fire Resistance Class		Load in any direction									
Steel 4.6	R30	Characteristic Resistance	$F^o_{Rk,fi}$	[kN]	0,2	0,4	0,9	1,5	3,1		
	R60			[kN]	0,2	0,3	0,8	1,3	2,4		
	R90			[kN]	0,1	0,3	0,6	1,1	2,0		
	R120			[kN]	0,1	0,2	0,5	0,8	1,6		
Steel 4.8	R30	Characteristic Resistance	$F^o_{Rk,fi}$	[kN]	0,4	0,9	0,9	1,5	4,0		
	R60			[kN]	0,3	0,9	1,5	1,5	4,0		
	R90			[kN]	0,3	0,6	1,1	1,5	3,0		
	R120			[kN]	0,3	0,5	0,9	1,2	2,4		
Steel ≥ 5.6	R30	Characteristic Resistance	$F^o_{Rk,fi}$	[kN]	0,8	0,9	1,5	1,5	4,0		
	R60			[kN]	0,8	0,9	1,5	1,5	4,1		
	R90			[kN]	0,4	0,9	1,5	1,5	3,7		
	R120			[kN]	0,3	0,5	1,0	1,2	2,4		
Stainless Steel A4	R30	Characteristic Resistance	$F^o_{Rk,fi}$	[kN]	0,8	0,9	1,5	1,5	4,0		
	R60			[kN]	0,8	0,9	1,5	1,5	4,1		
	R90			[kN]	0,4	0,9	1,5	1,5	3,7		
	R120			[kN]	0,3	0,5	1,0	1,2	2,4		
Partial safety factor			$\gamma_{M,fi}$	[-]	1,0						
Steel, zinc plated											
R30 to R120	Spacing		$S_{cr,fi}$	[mm]	130	180	170	200	400		
			S_{min}	[mm]	55	60	100	120	150		
	Edge Distance		$C_{cr,fi}$	[mm]	65	90	85	100	200		
			C_{min}	[mm]	95	95	135	165	200		
	If the fire attack is from more than one side, the edge distance shall be ≥ 300mm										
Stainless Steel A4											
R30 to R120	Spacing		$S_{cr,fi}$	[mm]	130	180	170	200	400		
			S_{min}	[mm]	50	60	100	120	150		
	Edge Distance		$C_{cr,fi}$	[mm]	65	90	85	100	200		
			C_{min}	[mm]	80	95	135	165	200		
	If the fire attack is from more than one side, the edge distance shall be ≥ 300mm										
Characteristic values under fire exposure in concrete C20/25 to C50/60. h_{ef} 25mm											
Anchor size					M8x25	M10x25	M12x25				
Fire Resistance Class		Load in any direction									
Steel ≥4.6	R30	Characteristic Resistance	$F^o_{Rk,fi}$	[kN]		0,6	0,6	0,6			
	R60			[kN]		0,6	0,6	0,7			
	R90			[kN]		0,6	0,6	0,8			
	R120			[kN]		0,5	0,5	0,5			
Partial safety factor			$\gamma_{M,fi}$	[-]	1,0						
If the fire attack is from more than one side, the edge distance shall be ≥ 300mm											

The anchor characteristics may only be applied to multiple use for non-structural applications. The definition of multiple use for individual Member States is given in the informative Annex 1 of ETAG 001 Part 6

The previous performance relates to the following product ranges			
ADB M08	ADB M0825SH	DSS M06	ADSS M08SH
ADB M10	ADB M0830SH	DSS M08	ADSS M10SH
ADB M12	ADB M1025SH	DSS M10	ADSS M12SH
ADB M16	ADB M1040SH	DSS M12	
	ADB M1225SH	DSS M16	
	ADB M1250SH		


Amendments

Date	Amendment
03/04/2019	Lipped Drop In Anchors added
	Pre-cast pre-stressed hollow concrete slabs 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	03/04/2019	