... eine starke Verbindung

DECLARATION OF PERFORMANCE
DoP No. MKT-131 - en

1. Unique identification code of the product-type: **MKT Drop-in Anchor E / ES**

2. Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):
ETA-05/0116, Annex A3
Batch number: see packaging of the product.

3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:

generic type	deformation-controlled expansion anchor
for use in	cracked or non-cracked concrete C20/25 - C50/60 (EN 206), for multiple point fixings for non-structural systems only
option	ETAG 001-06
loading	static or quasi-static
material	zinc-plated steel: dry internal conditions only covered sizes: E M6x30, E/ES M8x30, E/ES M8x40, ES M10x30, E/ES M10x40, E/ES M12x50, E/ES M16x65 stainless steel (marking A4): internal and external use without particular aggressive conditions covered sizes: E M6x30, E M8x30, E M8x40, E M10x40, E M12x50, E M16x65 highly corrosion resistant steel (marking HCR): internal and external use with particular aggressive conditions covered sizes: E M6x30, E M8x30, E M8x40, E M10x40, E M12x50, E M16x65
temperature range (if applicable)	--

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):
MKT Metall-Kunststoff-Technik GmbH & Co. KG
Auf dem Immel 2
D - 67685 Weilerbach

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2): --

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V: **System 2+**

7. In case of the declaration of performance concerning a construction product covered by a harmonised standard: --

25.09.2015

8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:

   Deutsches Institut für Bautechnik, Berlin

   issued

   ETA-05/0116

   on the basis of

   ETAG 001-6

   The notified body 1343-CPR performed under system 2+:

   (i) initial inspection of the manufacturing plant and of factory production control;
   (ii) continuous surveillance, assessment and evaluation of factory production control.

   and issued: Certificate of constancy of performance 1343-CPR-M 550-7

9. Declared performance:

Essential Characteristics	**Design Method**	**Performance**	**Harmonized Technical Specification**
characteristic resistance for tension	ETAG 001, Annex C	Annex C1	ETAG 001
	CEN/TS 1992-4		
characteristic resistance for shear	ETAG 001, Annex C	Annex C1	
	CEN/TS 1992-4		
characteristic resistance under fire exposure	ETAG 001, Annex C	Annex C2	
	CEN/TS 1992-4		

   Where pursuant to Article 37 or 38 in the Specific Technical Documentation has been used, the requirements with which the product complies: --

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

    This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

    Signed for and on behalf of the manufacturer by:

Lore Weustenhagen
(General Manager)
Weilerbach, 25.09.2015

i.V.

Dipl.-Ing. Detlef Bigalke
(Head of product development)

Tabelle C1: Characteristic values for resistance
(Design method B)

Anchor size			**M6x30**	**M8x30**	**M8x40**	**M10x30**	**M10x40**	**M12x50**	**M16x65**
Load in any direction									
Characteristic resistance in concrete C20/25 to C50/60	F^0_{Rk}	[kN]	3	5	6	6	6	6	16
Partial safety factor	γ_M	[-]	1,8	2,16		2,1	2,16	1,8	1,8
Shear load with lever arm, Steel zinc plated									
Characteristic resistance **(Steel 4.6)**	$M^0_{Rk,s}$ [1)]	[Nm]	6,1	15	15	30	30	52	133
Partial safety factor	γ_{Ms}	[-]	1,67						
Characteristic resistance **(Steel 4.8)**	$M^0_{Rk,s}$ [1)]	[Nm]	6,1	15	15	30	30	52	133
Partial safety factor	γ_{Ms}	[-]	1,25						
Characteristic resistance **(Steel 5.6)**	$M^0_{Rk,s}$ [1)]	[Nm]	7,6	19	19	37	37	65	166
Partial safety factor	γ_{Ms}	[-]	1,67						
Characteristic resistance **(Steel 5.8)**	$M^0_{Rk,s}$ [1)]	[Nm]	7,6	19	19	37	37	65	166
Partial safety factor	γ_{Ms}	[-]	1,25						
Characteristic resistance **(Steel 8.8)**	$M^0_{Rk,s}$ [1)]	[Nm]	12	30	30	59	60	105	266
Partial safety factor	γ_{Ms}	[-]	1,25						
Shear load with lever arm, Stainless steel A4 / HCR									
Characteristic resistance **(Property class 70)**	$M^0_{Rk,s}$ [1)]	[Nm]	11	26	26	-	52	92	233
Partial safety factor	γ_{Ms}	[-]	1,56						
Characteristic resistance **(Property class 80)**	$M^0_{Rk,s}$ [1)]	[Nm]	12	30	30	-	60	105	266
Partial safety factor	γ_{Ms}	[-]	1,33						

[1)] Characteristic bending moment $M^0_{Rk,s}$ for equation (5.5) in ETAG 001, Annex C or for equation (14) in CEN/TS 1992-4-4

Tabelle C2: Characteristic values under **fire exposure** in concrete C20/25 to C50/60 (Design method B)

Anchor size					**M6x30**	**M8x30**	**M8x40**	**M10x30**	**M10x40**	**M12x50**	**M16x65**
Fire resistance class		**Fire resistance class**									
Steel 4.6	R 30	Characteristic resistance	$F^0_{Rk,fi}$	[kN]	0,2	0,4	0,4	0,9	0,9	1,5	3,1
	R 60			[kN]	0,2	0,3	0,3	0,8	0,8	1,3	2,4
	R 90			[kN]	0,1	0,3	0,3	0,6	0,6	1,1	2,0
	R 120			[kN]	0,1	0,2	0,2	0,5	0,5	0,8	1,6
Steel 4.8	R 30	Characteristic resistance	$F^0_{Rk,fi}$	[kN]	0,4	0,9	1,1	0,9	1,5	1,5	4,0
	R 60			[kN]	0,3	0,9	0,9	0,9	1,5	1,5	4,0
	R 90			[kN]	0,3	0,6	0,6	0,9	1,1	1,5	3,0
	R 120			[kN]	0,3	0,5	0,5	0,7	0,9	1,2	2,4
Steel ≥ 5.6	R 30	Characteristic resistance	$F^0_{Rk,fi}$	[kN]	0,8	0,9	1,5	0,9	1,5	1,5	4,0
	R 60			[kN]	0,8	0,9	1,5	0,9	1,5	1,5	4,0
	R 90			[kN]	0,4	0,9	0,9	0,9	1,5	1,5	3,7
	R 120			[kN]	0,3	0,5	0,5	0,7	1,0	1,2	2,4
A4 / HCR	R 30	Characteristic resistance	$F^0_{Rk,fi}$	[kN]	0,8	0,9	1,5	-	1,5	1,5	4,0
	R 60			[kN]	0,8	0,9	1,5	-	1,5	1,5	4,0
	R 90			[kN]	0,4	0,9	0,9	-	1,5	1,5	3,7
	R 120			[kN]	0,3	0,5	0,5	-	1,0	1,2	2,4
		Partial safety factor $\gamma_{M,fi}$		[-]	1,0						
Steel zinc plated											
R 30 to R 120		Spacing	$s_{cr,fi}$	[mm]	130	180	210	170	170	200	400
			s_{min}	[mm]	55	60	80	100	100	120	150
		Edge distance	$c_{cr,fi}$	[mm]	65	90	105	85	85	100	200
			c_{min}	[mm]	95	95	95	115	135	165	200
		If the fire attack is from more than one side, the edge distance shall be ≥ 300 mm.									
Stainless steel A4, HCR											
R 30 to R 120		Spacing	$s_{cr,fi}$	[mm]	130	180	210	-	170	200	400
			s_{min}	[mm]	50	60	80	-	100	120	150
		Edge distance	$c_{cr,fi}$	[mm]	65	90	105	-	85	100	200
			c_{min}	[mm]	80	95	95	-	135	165	200
		If the fire attack is from more than one side, the edge distance shall be ≥ 300 mm.									