

IZJAVA O SVOJSTVIMA
DoP-br. MKT-211- hr

1. Jedinstvena identifikacijska oznaka vrste proizvoda: **MKT klin sidro B**
2. Tip, serija ili serijski broj ili bilo koji drugi element kojim se omogućuje identifikacija građevnog proizvoda, kako je potrebno sukladno članku 11. stavku 4.:

ETA-01/0013, dodatak A2 i A3
Broj proizvodne serije: pogledajte pakiranje

3. Namjeravana uporaba ili uporabe građevnog proizvoda, u skladu s primjenjivim usklađenim tehničkim specifikacijama, kako je predvidio proizvođač:

Vrsta proizvoda	sidro aktivirano zateznom silom
Za uporabu u	nenapuknuti beton C20/25 - C50/60 (EN 206)
Izbor	7
Opterećenje	statički i kvazi-statički
Materijal	<u>Pocinčani čelik:</u> samo u suhim interijerima važeće dimenzije: M6, M8, M10, M12, M16, M20 <u>Vruće cinčani čelik:</u> samo u suhim interijerima važeće dimenzije: M8, M10, M12, M16, M20 <u>Nehrđajući čelik (oznaka A4):</u> u unutarnjim i vanjskim prostorima, bez posebno agresivnim uvjetima važeće dimenzije: M6, M8, M10, M12, M16, M20 <u>vrlo otporno na koroziju (oznaka HCR):</u> u unutarnjim i vanjskim prostorima s posebno agresivnim uvjetima važeće dimenzije: M6, M8, M10, M12, M16, M20
Raspon temperature (možda)	--

4. Ime, registrirani trgovački naziv ili registrirani žig i kontaktna adresa proizvođača, kako je potrebno sukladno članku 11. stavku 5.:

MKT Metall-Kunststoff-Technik GmbH & Co. KG
Auf dem Immel 2
D - 67685 Weilerbach

5. Prema potrebi, ime i kontaktna adresa ovlaštenog predstavnika čije ovlaštenje obuhvaća zadatke pobliže označene u članku 12. stavku 2.: --
6. Sustav ili sustavi ocjenjivanja i provjere stalnosti svojstava građevnog proizvoda, kako je utvrđeno u Prilogu V.:
Sustav 1
7. U slučaju Izjave o svojstvima u vezi s građevnim proizvodom obuhvaćenim usklađenom normom:
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8. U slučaju izjave o svojstvima koja se odnosi na građevni proizvod za koji je izdana europska tehnička ocjena:

Deutsches Institut für Bautechnik, Berlin

izdan:

ETA-01/0013

na temelju

ETAG 001-2

Ovlaštena kuća izdaje: 1343-CPR, prema sustavu 1:

- i) utvrđivanja vrste proizvoda na temelju ispitivanja tipa (uključujući uzorkovanje), izračuna tipa, tabličnih vrijednosti ili opisne dokumentacije proizvoda;
- ii) početnu inspekciju proizvodnog pogona i kontrolu tvorničke proizvodnje;
- iii) stalni nadzor, ocjenjivanje i vrednovanje kontrole tvorničke proizvodnje.

i izdano: **Certifikat o stalnosti svojstva 1343-CPR-M 550-3**

9. Objavljeno svojstvo:

Bitne značajke	Metoda	Svojstva		Usklađena tehnička specifikacija
		galvaniziran	A4 / HCR	
Karakteristična otpornost na vlačne sile	ETAG 001, Dodatak C CEN/TS 1992-4	Dodatak C1	Dodatak C2	ETAG 001
Karakteristična otpornost sile na odrez	ETAG 001, Dodatak C CEN/TS 1992-4	Dodatak C3	Dodatak C3	
Pomak u korištenju	ETAG 001, Dodatak C CEN/TS 1992-4	Dodatak C4	Dodatak C4	

U slučaju kada je sukladno članku 37. ili 38. upotrijebljena specifična tehnička dokumentacija, zahtjevi s kojima je proizvod usklađen: --

10. Svojstvo proizvoda utvrđeno u točkama 1. i 2. u skladu je s objavljenim svojstvom u točki 9.

Ova izjava o svojstvima objavljena je pod isključivom odgovornošću proizvođača identificiranog u točki 4.

Za proizvođača i u njegovo ime potpisao:


Lore Weustenhagen
(Managing Director)
Weilerbach, 30.01.2015

i.V. 
Dipl.-Ing. Detlef Bigalke
(Head of Product Development)



Table C1: Characteristic values for tension loads, steel zinc plated

Anchor size			M6	M8	M10	M12	M16	M20	
Installation safety factor	$\gamma_2 = \gamma_{inst}$	[-]	1,0						
Steel failure									
Characteristic resistance	$N_{Rk,s}$	[kN]	8,7	15,3	26	35	65	107	
Partial safety factor	γ_{Ms}	[-]	1,5				1,6		
Pull-out									
Standard anchorage depth h_{ef}									
Characteristic resistance in non-cracked concrete C20/25	$N_{Rk,p}$	[kN]	9	12	16	1)	1)	1)	
Reduced anchorage depth $h_{ef,red}$									
Characteristic resistance in non-cracked concrete C20/25	$N_{Rk,p}$	[kN]	6 ²⁾	1)2)	1)	1)	1)	1)	
Increasing factor for $N_{Rk,p}$	ψ_C	[-]	$\left(\frac{f_{ck,cube}}{25}\right)^{0,5}$						
Splitting									
Standard anchorage depth h_{ef}									
Spacing	$S_{cr,sp}$	[mm]	160	220	240	330	410	500	
Edge distance	$C_{cr,sp}$	[mm]	80	110	120	165	205	250	
Reduced anchorage depth $h_{ef,red}$									
Spacing	$S_{cr,sp}$	[mm]	180	210	230	240	320	400	
Edge distance	$C_{cr,sp}$	[mm]	90	105	115	120	160	200	
Concrete cone failure									
Standard anchorage depth h_{ef}									
Effective anchorage depth	$h_{ef} \geq$	[mm]	40	44	48	65	82	100	
Spacing	$S_{cr,N}$	[mm]	3 h_{ef}						
Edge distance	$C_{cr,N}$	[mm]	1,5 h_{ef}						
Reduced anchorage depth $h_{ef,red}$									
Effective anchorage depth	$h_{ef,red} \geq$	[mm]	30 ²⁾	35 ²⁾	42	50	64	78	
Spacing	$S_{cr,N}$	[mm]	3 $h_{ef,red}$						
Edge distance	$C_{cr,N}$	[mm]	1,5 $h_{ef,red}$						
Factor according to CEN/TS 1992-4	k_{ucr}	[-]	10,1						

¹⁾ Pullout failure is not decisive

²⁾ Use restricted to anchorages of indeterminate structural components

Wedge Anchor B

Performance
Characteristic values for tension loads, steel zinc plated

Annex C1

Table C2: Characteristic values for tension loads, stainless steel A4/HCR

Anchor size			M6	M8	M10	M12	M16	M20	
Installation safety factor	$\gamma_2 = \gamma_{inst}$	[-]	1,0						
Steel failure									
Characteristic resistance	$N_{RK,s}$	[kN]	10	18	30	44	88	134	
Partial safety factor	γ_{Ms}	[-]	1,50						1,68
Pull-out									
Standard anchorage depth h_{ef}									
Characteristic resistance in non-cracked concrete C20/25	$N_{RK,p}$	[kN]	7,5	12	16	25	1)	1)	
Reduced anchorage depth $h_{ef,red}$									
Characteristic resistance in non-cracked concrete C20/25	$N_{RK,p}$	[kN]	6 ²⁾	9 ²⁾	12	1)	1)	1)	
Splitting For the proof against splitting $N^0_{RK,c}$ has to be replaced by $N^0_{RK,sp}$.									
Standard anchorage depth h_{ef}									
The higher one of the decisive resistances of Case 1 and Case 2 is applicable.									
Case 1									
Characteristic resistance in non-cracked concrete C20/25	$N^0_{RK,sp}$	[kN]	6	9	12	20	30	40	
Spacing	$S_{cr,sp}$	[mm]	3 h_{ef}						
Edge distance	$C_{cr,sp}$	[mm]	1,5 h_{ef}						
Case 2									
Characteristic resistance in non-cracked concrete C20/25	$N^0_{RK,sp}$	[kN]	7,5	12	16	25	1)	1)	
Spacing	$S_{cr,sp}$	[mm]	160	220	240	340	410	560	
Edge distance	$C_{cr,sp}$	[mm]	80	110	120	170	205	280	
Reduced anchorage depth $h_{ef,red}$									
Characteristic resistance in non-cracked concrete C20/25	$N^0_{RK,sp}$	[kN]	6 ²⁾	9 ²⁾	12	1)	1)	1)	
Spacing	$S_{cr,sp}$	[mm]	180	210	230	300	320	400	
Edge distance	$C_{cr,sp}$	[mm]	90	105	115	150	160	200	
Increasing factor for $N_{RK,p}$ and $N^0_{RK,sp}$	ψ_C	[-]	$\left(\frac{f_{ck,cube}}{25}\right)^{0,5}$						
Concrete cone failure									
Standard anchorage depth									
Effective anchorage depth	h_{ef}	[mm]	40	44	48	65	80	100	
Spacing	$S_{cr,N}$	[mm]	3 h_{ef}						
Edge distance	$C_{cr,N}$	[mm]	1,5 h_{ef}						
Reduced anchorage depth									
Effective anchorage depth	$h_{ef,red}$	[mm]	30 ²⁾	35 ²⁾	42	50	64	78	
Spacing	$S_{cr,N}$	[mm]	3 h_{ef}						
Edge distance	$C_{cr,N}$	[mm]	1,5 h_{ef}						
Factor according to CEN/TS 1992-4	K_{ucr}	[-]	10,1						

¹⁾ Pullout failure is not decisive.

²⁾ Use restricted to anchorages of indeterminate structural components.

Wedge Anchor B

Performance
Characteristic values for tension loads, stainless steel A4/HCR

Annex C2

Table C3: Characteristic values for shear loads, steel zinc plated

Anchor size			M6	M8	M10	M12	M16	M20
Installation safety factor	$\gamma_2 = \gamma_{inst}$	[-]	1,0					
Steel failure without lever arm								
Characteristic shear resistance	$V_{Rk,s}$	[kN]	5	11	17	25	44	69
Factor for ductility	k_2	[-]	1,0					
Steel failure with lever arm								
Characteristic resistance	$M^0_{Rk,s}$	[Nm]	9	23	45	78	186	363
Partial safety factor for $V_{Rk,s}$ and $M^0_{Rk,s}$	γ_{Ms}	[-]	1,25				1,33	
Concrete pry-out failure								
Factor k acc. ETAG 001, Annex C or k_3 acc. CEN/TS 1992-4 for h_{ef}	$k_{(3)}$	[-]	1,0	1,0	1,0	2,0	2,0	2,0
Factor k acc. ETAG 001, Annex C or k_3 acc. CEN/TS 1992-4 for $h_{ef,red}$	$k_{(3)}$	[-]	1,0 ¹⁾	1,0 ¹⁾	1,0	1,0	2,0	2,0
Concrete edge failure								
Effective length of anchor in shear loading for h_{ef}	l_f	[mm]	40	44	48	65	82	100
Effective length of anchor in shear loading for $h_{ef,red}$	$l_{f,red}$	[mm]	30 ¹⁾	35 ¹⁾	42	50	64	78
Outside diameter of anchor	d_{nom}	[mm]	6	8	10	12	16	20

¹⁾ Use restricted to anchorages of indeterminate structural components

Table C4: Characteristic values for shear loads, stainless steel A4/HCR

Anchor Size			M6	M8	M10	M12	M16	M20
Installation safety factor	$\gamma_2 = \gamma_{inst}$	[-]	1,0					
Steel failure without lever arm								
Characteristic shear resistance	$V_{Rk,s}$	[kN]	7	12	19	27	50	86
Factor for ductility	k_2	[-]	1,0					
Steel failure with lever arm								
Characteristic bending moment	$M^0_{Rk,s}$	[Nm]	10	24	49	85	199	454
Partial safety factor for $V_{Rk,s}$ and $M^0_{Rk,s}$	γ_{Ms}	[-]	1,25				1,4	
Concrete pry-out failure								
Factor k acc. ETAG 001, Annex C or k_3 acc. CEN/TS 1992-4 for h_{ef}	$k_{(3)}$	[-]	1,0	1,0	1,0	2,0	2,0	2,0
Factor k acc. ETAG 001, Annex C or k_3 acc. CEN/TS 1992-4 for $h_{ef,red}$	$k_{(3)}$	[-]	1,0 ¹⁾	1,0 ¹⁾	1,0	1,0	2,0	2,0
Concrete edge failure								
Effective length of anchor in shear loading with h_{ef}	l_f	[mm]	40	44	48	65	80	100
Effective length of anchor in shear loading with $h_{ef,red}$	$l_{f,red}$	[mm]	30 ¹⁾	35 ¹⁾	42	50	64	78
Outside diameter of anchor	d_{nom}	[mm]	6	8	10	12	16	20

¹⁾ Use restricted to anchorages of indeterminate structural components

Wedge Anchor B

Performance
Characteristic values for **shear loads**

Annex C3

Table C5: Displacements under tension loads, steel zinc plated

Anchor size			M6	M8	M10	M12	M16	M20
Standard anchorage depth								
Tension load	N	[kN]	4,3	5,8	7,6	11,9	16,7	23,8
Displacement	δ_{N0}	[mm]	0,4	0,5				
	$\delta_{N\infty}$	[mm]	0,7	2,3				
Reduced anchorage depth								
Tension load	N	[kN]	2,9	5,0	6,5	8,5	12,3	16,6
Displacement	δ_{N0}	[mm]	0,3	0,4				
	$\delta_{N\infty}$	[mm]	0,6	1,8				

Table C6: Displacements under tension loads, stainless steel A4/HCR

Anchor size			M6	M8	M10	M12	M16	M20
Standard anchorage depth								
Tension load	N	[kN]	3,6	5,7	7,6	11,9	17,2	24,0
Displacement	δ_{N0}	[mm]	0,7	0,9	0,5	0,6	0,9	2,1
	$\delta_{N\infty}$	[mm]	1,8					4,2
Reduced anchorage depth								
Tension load	N	[kN]	2,9	4,3	5,7	8,5	12,3	16,6
Displacement	δ_{N0}	[mm]	0,4	0,7	0,4	0,4	0,6	1,5
	$\delta_{N\infty}$	[mm]	1,3					2,9

Table C7: Displacements under shear loads, steel zinc plated

Anchor size			M6	M8	M10	M12	M16	M20
Shear load	V	[kN]	2,9	6,3	9,7	14,3	23,6	37,0
Displacement	δ_{V0}	[mm]	1,2	1,5	1,6	2,6	3,1	4,4
	$\delta_{V\infty}$	[mm]	2,4	2,2	2,4	3,9	4,6	6,6

Table C8: Displacements under shear loads, stainless steel A4/HCR

Anchor Size			M6	M8	M10	M12	M16	M20
Shear load	V	[kN]	4,0	6,9	10,9	15,4	28,6	43,7
Displacement	δ_{V0}	[mm]	1,1	2,0	1,2	2,0	2,2	2,1
	$\delta_{V\infty}$	[mm]	1,7	3,0	1,8	3,0	3,3	3,2

Wedge Anchor B

Performance
Displacements

Annex C4