

Nro **4 - 036 - 220912 - 2023/01**

F



2.) Aiottu käyttötarkoitus (aiotut käyttötarkoitukset):
Sinkitystä tai haponkestävästä A4 teräksestä valmistettu matkakontrolloitu ankkuri, koot M6, M8, M10, M12, M16 ja M20, betoniin tehtäviin sarjakiinnityksiin ei-rakenteellisiin järjestelmiin.

3.) Valmistaja:
EJOT SE & Co. KG, MU Construction, In der Stockwiese 35, 57334 Bad Laasphe - Germany

4.) Suoritustason pysyvyyden arvioinnissa ja varmentamisessa käytetty järjestelmä/käytetyt järjestelmät:

Järjestelmä 2+

5.)	Eurooppalainen arviointiasiakirja:	EAD 330747-00-0601
	Eurooppalainen tekninen arviointi:	ETA-22/0912
	Teknisestä arvioinnista vastaava laitos:	Instituto de Ciencias de la Construcción Eduardo Torroja CSIC
	Ilmoitettu laitos/ilmoitetut laitokset:	1219 - ETcc-CSIC

6.) Ilmoitettu suoritustaso/ilmoitetut suoritustasot:

a) Mekaaninen kestävyys ja vakavuus (BWR 1) sekä turvallisuus ja saavutettavuus (BWR 4)

[illegible]

SUORITUSTASOILMOITUS

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b) Turvallisuus tulipalon sattuessa (BWR 2)

Perusominaisuudet	Tuotteen suoritustaso
Reagointi tulipaloon	Kiinnityspisteet täyttävät standardin EN 13501-1 mukaiset A1-luokan vaatimukset.
Tulenkestävyys	Katso liite C7

c) Hygienia, terveys ja ympäristö (BWR 3)

Perusominaisuudet	Tuotteen suoritustaso

d) Suojaus melua vastaan (BWR 5)

Perusominaisuudet	Tuotteen suoritustaso

e) Energiansäästö ja lämmöntalteenotto (BWR 6)

Perusominaisuudet	Tuotteen suoritustaso

f) Luonnonvarojen kestävä käyttö (BWR 7)

Perusominaisuudet	Tuotteen suoritustaso

Edellä yksilöidyn tuotteen suoritustaso on ilmoitettujen suoritustasojen joukon mukainen. Tämä suoritustasoilmoitus on asetuksen (EU) N:o 305/2011 mukaisesti annettu edellä ilmoitetun valmistajan yksinomaisella vastuulla.

Valmistajan puolesta allekirjoittanut:

Dr. Jens Weber

(nimi)

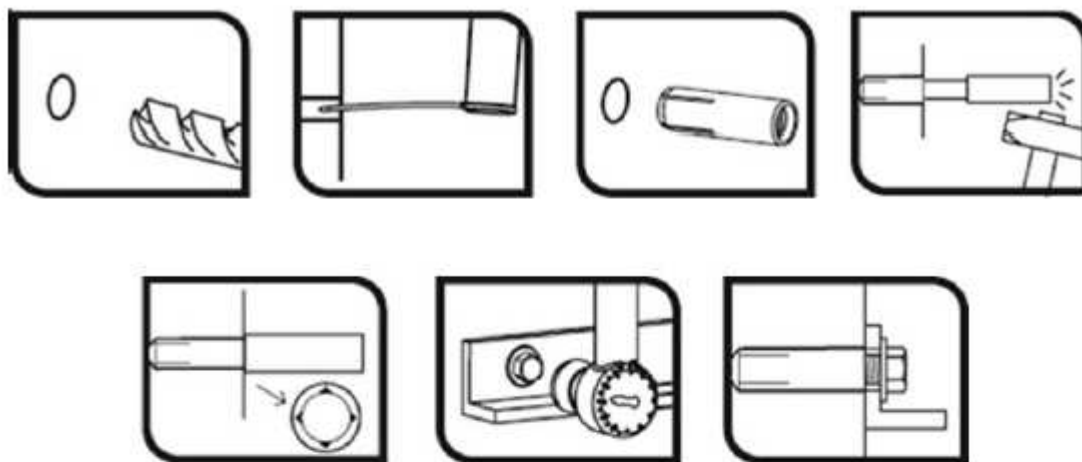
Bad Laasphe, 10.01.2023

(paikka ja päivämäärä)



(allekirjoitus)

Installation process



Drop in anchor J+ / JS+ / JSR+ / JE+ / JSE+

Performances

Installation procedure

Annex C3

Table C3: Essential characteristics in concrete to loads of design method B according to EN 1992-4 for Drop in anchor J+ / JS+ / JSR+

Essential characteristics of resistance to loads of design method B		Performances						
		M6	M8	M10	M12	M12D	M16	M20
Any load direction								
Drop in anchor J+ / JS+								
F_{Rk}^0	Characteristic resistance in C12/15 concrete: [kN]	1.5	3.0	4.0	6.0	--	9.0	16.0
F_{Rk}^0	Characteristic resistance in C20/25 to C50/60 concrete: [kN]	2.0	3.0	5.0	7.5	6.0	12.0	20.0
γ_{ins}	Installation safety factor: [-]	1.2	1.2	1.4	1.4	1.4	1.4	1.4
s_{cr}	Critical spacing: [mm]	75	90	120	150	200	195	240
c_{cr}	Critical edge distance: [mm]	40	45	60	75	150	100	120
Drop in anchor JSR+								
F_{Rk}^0	Characteristic resistance in C20/25 to C50/60 concrete: [kN]	--	2.5	4.0	4.0	--	--	--
γ_{ins}	Installation safety factor: [-]	--	1.2	1.2	1.2	--	--	--
s_{cr}	Critical spacing: [mm]	--	120	120	120	--	--	--
c_{cr}	Critical edge distance: [mm]	--	60	60	60	--	--	--
Shear loads: steel failure with lever arm								
$M_{Rk,s}^0$	Characteristic bending moment, steel class 4.6 [Nm]	6.1	15.0	29.9	52.4	52.4	133.3	259.8
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.67						
$M_{Rk,s}^0$	Characteristic bending moment, steel class 4.8 [Nm]	6.1	15.0	29.9	52.4	52.4	133.3	259.8
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.25						
$M_{Rk,s}^0$	Characteristic bending moment, steel class 5.6 [Nm]	7.6	18.8	37.4	65.5	65.5	166.6	324.8
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.67						
$M_{Rk,s}^0$	Characteristic bending moment, steel class 5.8 [Nm]	7.6	18.8	37.4	65.5	65.5	166.6	324.8
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.25						
$M_{Rk,s}^0$	Characteristic bending moment, steel class 6.8 [Nm]	9.2	22.5	44.9	78.7	78.7	199.9	389.7
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.25						
$M_{Rk,s}^0$	Characteristic bending moment, steel class 8.8 [Nm]	12.2	30.0	59.9	104.9	104.9	266.6	519.7
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.25						

1) In absence of other national regulations

Drop in anchor J+ / JS+ / JSR+

Performances

Essential characteristics in concrete

Annex C4

Table C4: Essential characteristics in concrete to loads of design method B according to EN 1992-4 for Drop in anchor JE+ / JSE+

Essential characteristic of resistance to loads of design method B		Performances					
		M6	M8	M10	M12	M16	M20
All load direction							
F_{Rk}^0	Characteristic resistance in C20/25 to C50/60 concrete: [kN]	2.5	3.5	3.5	6.5	12.5	16.5
γ_{ins}	Installation safety factor: [-]	1.4					
S_{cr}	Critical spacing: [mm]	200	200	200	200	260	320
C_{cr}	Critical edge distance: [mm]	150	150	150	150	195	240
Shear loads: steel failure with lever arm							
$M_{Rk,s}^0$	Characteristic bending moment, steel class A4-50 [Nm]	7.6	18.8	37.4	65.6	166.6	324.8
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	2.38					
$M_{Rk,s}^0$	Characteristic bending moment, steel class A4-70 [Nm]	10.6	6.3	52.4	91.8	233.1	454.7
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.56					
$M_{Rk,s}^0$	Characteristic bending moment, steel class A4-80 [Nm]	12.2	30.0	59.9	104.9	266.6	519.7
$\gamma_{Ms}^{(1)}$	Partial safety factor: [-]	1.34					

¹⁾ In absence of other national regulations

Drop in anchor JE+ / JSE+

Performances

Essential characteristic in concrete

Annex C5

Table C5: Essential characteristics in precast prestressed hollow core slabs to loads of design method B according to EN 1992-4 for Drop in anchor JSR+

Essential characteristics of resistance to loads of design method B		Performances						
		M6	M8	M10	M12	M12D	M16	M20
Any load direction								
F_{Rk}^0	Characteristic resistance in prestressed hollow core concrete slabs C30/37 to C50/60: [kN]	--	5,5	6,0	6,5	--	--	--
γ_{ms}	Installation safety factor: [-]	--	1.2	1.4	1.4	--	--	--
S_{cr}	Critical spacing: [mm]	--	200	200	200	--	--	--
C_{cr}	Critical edge distance: [mm]	--	150	150	150	--	--	--
Shear loads: steel failure with lever arm								
$M_{Rk,s}^0$	Characteristic bending moment, steel class 4.6 [Nm]	--	15.0	29.9	52.4	--	--	--
$\gamma_{Ms}^{1)}$	Partial safety factor: [-]	--	1.67			--	--	--
$M_{Rk,s}^0$	Characteristic bending moment, steel class 4.8 [Nm]	--	15.0	29.9	52.4	--	--	--
$\gamma_{Ms}^{1)}$	Partial safety factor: [-]	--	1.25			--	--	--
$M_{Rk,s}^0$	Characteristic bending moment, steel class 5.6 [Nm]	--	18.8	37.4	65.5	--	--	--
$\gamma_{Ms}^{1)}$	Partial safety factor: [-]	--	1.67			--	--	--
$M_{Rk,s}^0$	Characteristic bending moment, steel class 5.8 [Nm]	--	18.8	37.4	65.5	--	--	--
$\gamma_{Ms}^{1)}$	Partial safety factor: [-]	--	1.25			--	--	--
$M_{Rk,s}^0$	Characteristic bending moment, steel class 6.8 [Nm]	--	22.5	44.9	78.7	--	--	--
$\gamma_{Ms}^{1)}$	Partial safety factor: [-]	--	1.25			--	--	--
$M_{Rk,s}^0$	Characteristic bending moment, steel class 8.8 [Nm]	--	30.0	59.9	104.9	--	--	--
$\gamma_{Ms}^{1)}$	Partial safety factor: [-]	--	1.25			--	--	--

1) In absence of other national regulations

Drop in anchor JSR+

Performances

Essential characteristics in precast prestressed hollow core concrete slabs

Annex C6

Table C6: Essential characteristics under fire exposure in concrete C20/25 to C50/50 in any load direction according to EN 1992-4 for Drop in anchor J+ / JS+

Essential characteristics under fire exposure in concrete C20/25 to C50/60 in any load direction				Performances						
				M6	M8	M10	M12	M12D	M16	M20
R30	Characteristic resistance: $F_{Rk,130}^{0,1)}$	[kN]		0.2	0.4	0.9	1.7	1.7	3.1	4.9
R60	Characteristic resistance: $F_{Rk,160}^{0,1)}$	[kN]		0.2	0.3	0.8	1.3	1.3	2.4	3.7
R90	Characteristic resistance: $F_{Rk,190}^{0,1)}$	[kN]		0.1	0.3	0.6	1.1	1.1	2.0	3.2
R120	Characteristic resistance: $F_{Rk,120}^{0,1)}$	[kN]		0.1	0.2	0.5	0.8	0.8	1.6	2.5
R30 to R120	Spacing $S_{cr,f}$	[mm]		4 x hef						
R120	Edge distance $c_{cr,f}$	[mm]		2 x hef						

¹⁾ in absence of other national regulations the partial safety factor for resistance under fire exposure $\gamma_{M,f} = 1.0$ is recommended
If fire attack is from more than one side, the design method may be taken if edge distance of the anchor is $c \geq 300$ mm

Table C7: Essential characteristics under fire exposure in concrete C20/25 to C50/50 in any load direction according to EN 1992-4 for Drop in anchor JSR+

Essential characteristics under fire exposure in concrete C20/25 to C50/60 in any load direction				Performances						
				M6	M8	M10	M12	M16	M20	
R30	Characteristic resistance: $F_{Rk,130}^{0,1)}$	[kN]		--	0.54	0.54	0.54	--	--	
R60	Characteristic resistance: $F_{Rk,160}^{0,1)}$	[kN]		--	0.54	0.54	0.54	--	--	
R90	Characteristic resistance: $F_{Rk,190}^{0,1)}$	[kN]		--	0.44	0.54	0.54	--	--	
R120	Characteristic resistance: $F_{Rk,120}^{0,1)}$	[kN]		--	0.37	0.43	0.43	--	--	
R30 to R120	Spacing $S_{cr,f}$	[mm]		--	4 x hef				--	--
R120	Edge distance $c_{cr,f}$	[mm]		--	2 x hef				--	--

¹⁾ in absence of other national regulations the partial safety factor for resistance under fire exposure $\gamma_{M,f} = 1.0$ is recommended
If fire attack is from more than one side, the design method may be taken if edge distance of the anchor is $c \geq 300$ mm

Table C8: Essential characteristics under fire exposure in concrete C20/25 to C50/50 in any load direction according to EN 1992-4 for Drop in anchor JE+ / JSE+

Essential characteristics under fire exposure in concrete C20/25 to C50/60 in any load direction				Performances						
				M6	M8	M10	M12	M16	M20	
R30	Characteristic resistance: $F_{Rk,130}^{0,1)}$	[kN]		0.20	0.73	0.87	1.63	3.19	4.12	
R60	Characteristic resistance: $F_{Rk,160}^{0,1)}$	[kN]		0.18	0.59	0.87	1.63	3.19	4.12	
R90	Characteristic resistance: $F_{Rk,190}^{0,1)}$	[kN]		0.14	0.44	0.87	1.63	3.14	4.12	
R120	Characteristic resistance: $F_{Rk,120}^{0,1)}$	[kN]		0.10	0.37	0.69	1.30	2.51	3.30	
R30 to R120	Spacing $S_{cr,f}$	[mm]		4 x hef						
R120	Edge distance $c_{cr,f}$	[mm]		2 x hef						

¹⁾ in absence of other national regulations the partial safety factor for resistance under fire exposure $\gamma_{M,f} = 1.0$ is recommended
If fire attack is from more than one side, the design method may be taken if edge distance of the anchor is $c \geq 300$ mm

Drop in anchor J+ / JS+ / JSR+ / JE+ / JSE+

Performances

Essential characteristics under fire exposure

Annex C7