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European Technical Assessment

ETA-20/0446
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English version prepared by ZAG

General Part

Technical Assessment Body issuing the European Technical Assessment	**ZAG Ljubljana**
Trade name of the construction product	**Sormat Concrete Screw Anchor S-CSA+/ EJOT Concrete Screw Anchor JC2 Plus**
Product family to which the construction product belongs	**33: Concrete screw of size 8, 10 and 14 for use in cracked and non-cracked concrete**
Manufacturer	**EJOT SORMAT OY** **Vähäkorventie 10** **21250 Masku** **Finland** www.ejot.fi
Manufacturing plant	**EJOT Sormat Plant 1**
This European Technical Assessment contains	15 pages including 3 annexes, which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	EAD 330232-01-0601, edition December 2019
This version replaces	ETA-20/0446 issued on 19. 1. 2022

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Specific part

1 Technical description of the product

The Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus is a concrete screw in sizes 8, 10 and 14 made of galvanised carbon steel. The fastener is screwed into a predrilled cylindrical hole. The special thread of the anchor cuts an internal thread into the member while setting. The anchorage is characterised by mechanical interlock in the special thread.

For the installed anchor see Figure given in Annex A (1/2).

2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

The performances given in Chapter 3 are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B.

The provisions made in this European Technical Assessment are based on an assumed working life of the anchor of 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Mechanical resistance and stability (BWR 1)

The basic work requirements for mechanical resistance and stability are listed in Annexes C (1/7), C (2/7), C (5/7), C (6/7) and C (7/7).

3.2 Safety in case of fire (BWR 2)

The basic work requirements for safety in case of fire are listed in Annexes C (3/7) and C (4/7).

3.3 General aspects relating to fitness for use

Durability and serviceability are only ensured if specifications of intended use according to Annex B (1/3) are kept.

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

According to the decision 96/582/EC of the European Commission[1] the system of assessment and verification of constancy of performance (see Annex V to regulation (EU) No 305/2011) 1 apply.

5 Technical details necessary for the implementation of the AVCP system, as provided for on the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in chapter 3 of EAD 330232-01-0601.

Issued in Ljubljana on 24. 10. 2022

Signed by:

Franc Capuder, M.Sc.
Head of Service of TAB

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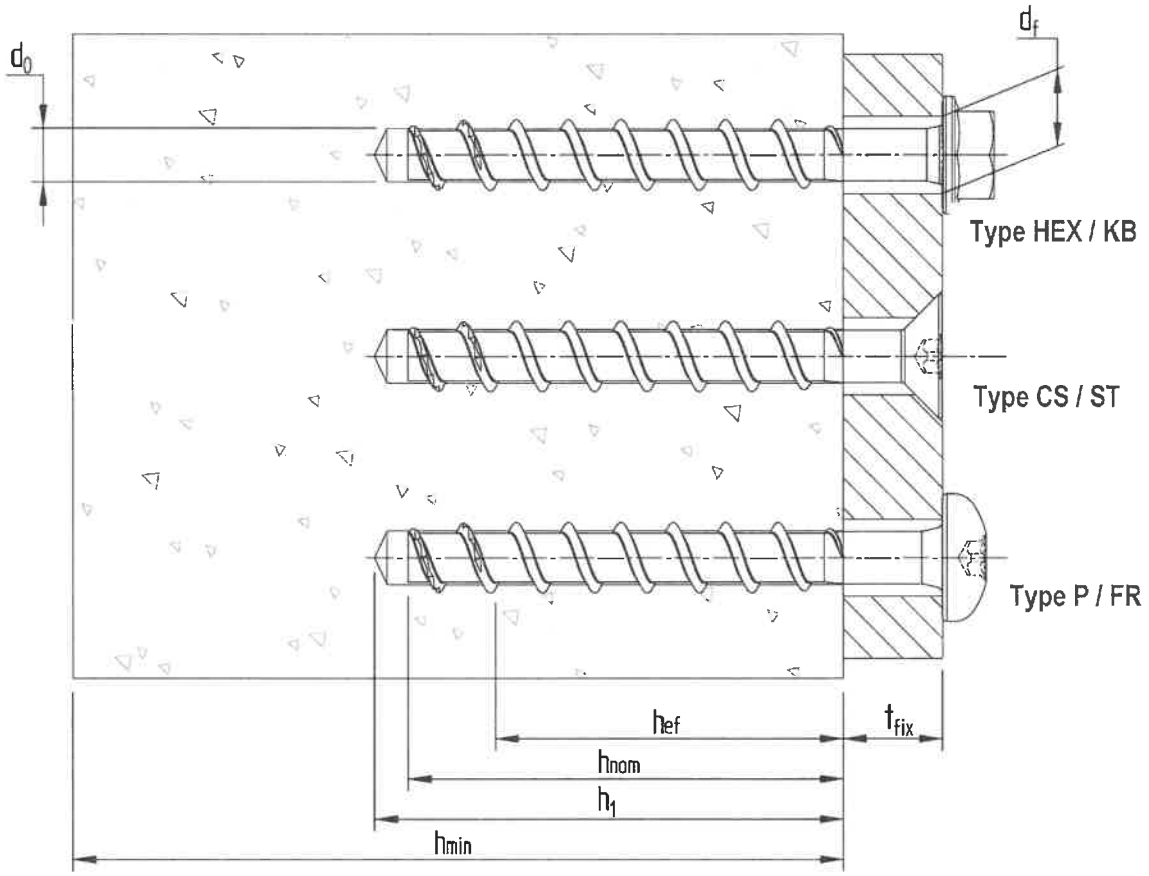
[1] Official Journal of the European Communities L 254 of 8.10.1996

Sormat Concrete Screw Anchor S-CSA+ /
EJOT Concrete Screw Anchor JC2 Plus
after installation



d_0 = Drill hole diameter
h_{nom} = Nominal embedment depth
h_1 = Drill hole depth
h_{min} = Minimum concrete member thickness
t_{fix} = Fixture thickness
d_f = Clearance hole diameter in fixture

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Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus	**Annex A (1/2)**
Product description Installation condition	

Table A1: Materials and Types

Material	f_{yk} [N/mm²]	f_{uk} [N/mm²]
Cold forged carbon steel, zinc electroplated according to EN ISO 4042 or with Multi Layer Coating (zinc alloy coated), thickness ≥ 5µm	640	800

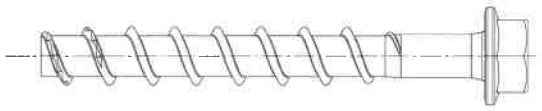
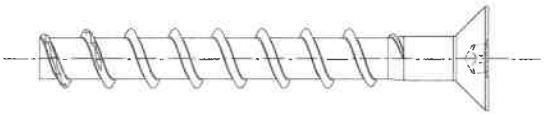
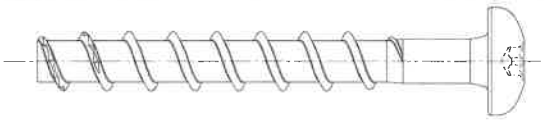
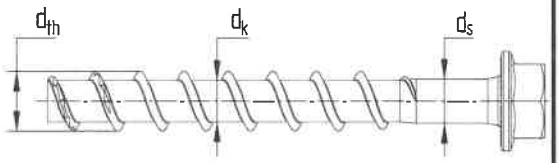
Part	Designation	Description	Design
1	S-CSA+ HEX / JC2-KB Plus	Hexagonal head version with or without combined washer	
2	S-CSA+ CS / JC2-ST Plus	Countersunk head version with T-drive	
3	S-CSA+ P / JC2-FR Plus	Pan head version with T-drive	

Table A2: Anchor dimensions and head marking

Anchor size			S-CSA+ / JC2 Plus 8	S-CSA+ / JC2 Plus 10	S-CSA+ / JC2 Plus 14
Nominal diameter	d_{nom}	[mm]	8	10	14
Thread outer diameter	d_{th}	[mm]	10,50	12,70	16,55
Core diameter	d_k	[mm]	7,30	9,15	13,00
Shaft diameter	d_s	[mm]	7,80	9,62	13,40
Stressed section	A_s	[mm²]	42,43	65,76	132,73

Marking:

Identifying mark:	S
Anchor identity:	CSA+
Nominal diameter:	d_{nom}
Screw length:	L
Example:	**S-CSA+ 8x80 / JC2 Plus 8×80**



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Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus

Product description

Materials, types and dimensions

Annex A (2/2)

Specifications of intended use

Anchorages subjected to:

- Static, quasi static load and seismic load,
- fire exposure.

Base materials:

- Cracked and non-cracked concrete.
- Reinforced and unreinforced normal weight concrete of strength class C20/25 at minimum and C50/60 at maximum according to EN 206:2013+A2:2021.

Use conditions (Environmental conditions):

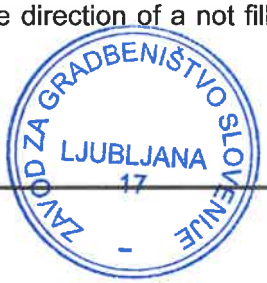
- The anchor may be used in concrete subject to dry internal conditions.

Design:

- Anchorages are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- Anchorages under static and quasi-static actions are designed in accordance with EN 1992-4:2018.
- For seismic application the anchorages are designed in accordance with EN 1992-4:2018.
- For application with resistance under fire exposure the anchorages are designed in accordance with the method given in EN 1992-4:2018.
- Verifiable calculation notes and drawings are prepared taking into account of the load to be anchored. The position of the anchor is indicated on the design drawings (e.g. position of the anchor relative to reinforcement or to supports, etc.).

Installation:

- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters on the site.
- Use of the anchor only as supplied by the manufacturer without exchanging the components of an anchor.
- Anchor installation in accordance with the manufacturer's specifications and drawings using the appropriate tools.
- Checks before placing the anchor to ensure that the strength class of the concrete in which the anchor is to be placed is in the rang given and is not lower that of the concrete to which the characteristic loads apply for.
- Check of concrete being well compacted, e.g. without significant voids.
- Cleaning of the hole of drilling dust.
- Anchor installation ensuring the specified embedment depth.
- Keeping of the edge distance and spacing to the specified values without minus tolerances.
- Positioning of the drill holes without damaging the reinforcement.
- In case of aborted hole, drilling of new hole at a minimum distance of twice the depth of the aborted hole, or smaller distance provided the aborted drill hole is filled with high strength non-shrinkage mortar. No shear or oblique tension loads are allowed in the direction of a not filled aborted hole.
- Observe the maximum installation torque given in Annex B2.



Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus	**Annex B (1/3)**
Intended use Specifications	

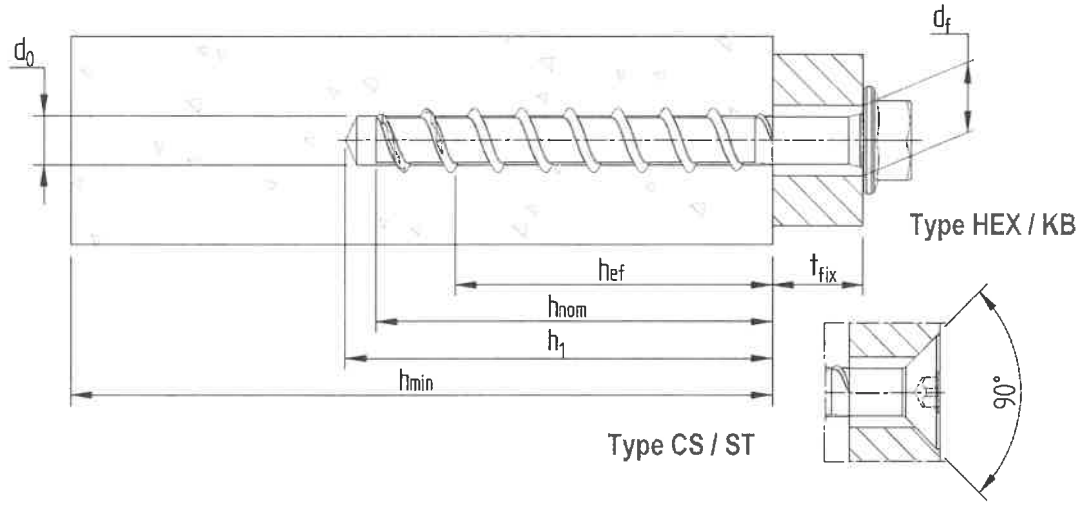


Table B1: Installation data

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			**Anchor size**					
			S-CSA+ 8 / JC2 Plus 8		**S-CSA+ 10 / JC2 Plus 10**		**S-CSA+ 14 / JC2 Plus 14**	
			8-1	**8-2**	**10-1**	**10-2**	**14-1**	**14-2**
Nominal embedment depth	h_{nom}	[mm]	50	65	55	85	65	115
Drill hole diameter	d_0	[mm]	8		10		14	
Cutting diameter at the upper tolerance limit (maximum diameter bit)	$d_{cut,max} \leq$	[mm]	8,45		10,45		14,50	
Depth of drilled hole to deepest point	$h_1 \geq$	[mm]	60	75	65	95	75	125
Effective anchorage depth	h_{ef}	[mm]	39,2	51,9	42,5	68,0	49,3	91,8
Diameter of clearance hole in the fixture	d_f	[mm]	10,8 - 12,0		13,0 – 14,0		17,0 – 18,0	
Maximum installation torque	$T_{inst} \leq$	[Nm]	45		85		100	
Max installation torque for impact screw driver	T_{SD}	[Nm]	290		650		650	

Table B2: Minimum thickness of concrete member, spacing and edge distance

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			**Anchor size**					
			S-CSA+ 8 / JC2 Plus 8		**S-CSA+ 10 / JC2 Plus 10**		**S-CSA+ 14 / JC2 Plus 14**	
			8-1	**8-2**	**10-1**	**10-2**	**14-1**	**14-2**
Minimum thickness of concrete member	h_{min}	[mm]	100	115	100	130	120	150
Minimum spacing	s_{min}	[mm]	35	35	40	40	60	60
Minimum edge distance	c_{min}	[mm]	35	35	40	40	60	60

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus

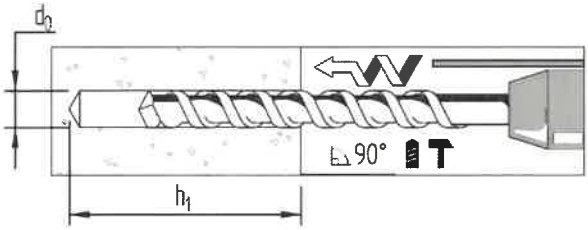
Intended use

Installation data

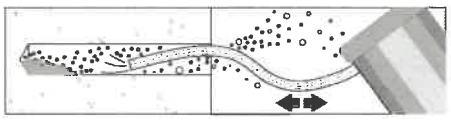
Annex B (2/3)

Installation instructions

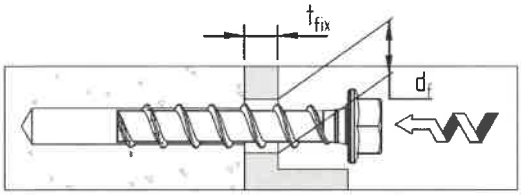
Part 1



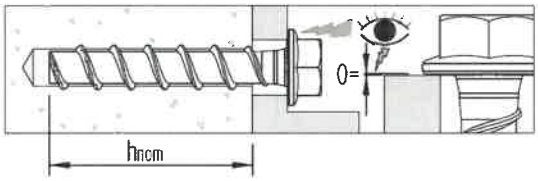
Make a cylindrical hole



Clean the hole

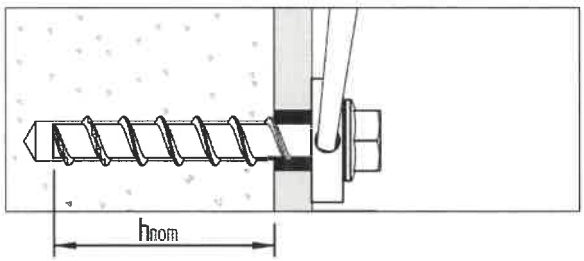


Install the screw anchor by impact screwdriver or torque wrench



Ensure that the screw anchor head fully rests without any gap on the fixture and is not damaged

Part 2



Filling of annular gap.
For seismic category C2 application the annular gap between screw and fixture must be filled with mortar (compressive strength ≥ 50 N/mm^2). It is recommended to use a filling washer and a mixer reducer tip.

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus

Intended use
Installation instructions

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Annex B (3/3)

Table C1: Characteristic resistances under tension loads in case of static and quasi-static loading for design according to EN 1992-4:2018

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size					
			S-CSA+ 8 / JC2 Plus 8		S-CSA+ 10 / JC2 Plus 10		S-CSA+ 14 / JC2 Plus 14	
			8-1	8-2	10-1	10-2	14-1	14-2
Steel failure								
Characteristic resistance	$N_{Rk,s}$	[kN]	33,9		52,6		106,2	
Partial safety factor	γ_{Ms} [1)]	[-]	1,5					
Pull-out failure								
Characteristic resistance in **cracked** concrete C20/25	$N_{Rk,p}$	[kN]	6,5	12,0	7,5	19,0	8,5	30,0
Characteristic resistance in **non-cracked** concrete C20/25	$N_{Rk,p}$	[kN]	12,1	18,4	13,6	27,6	15,0	42,0
Increasing factor for $N_{Rk,p}$	Ψ_C	C25/30	1,07	1,07	1,06	1,06	1,08	1,10
		C30/37	1,13	1,14	1,12	1,12	1,14	1,19
		C35/45	1,19	1,19	1,17	1,17	1,20	1,27
		C40/50	1,24	1,24	1,21	1,21	1,26	1,34
		C45/55	1,28	1,29	1,25	1,25	1,31	1,41
		C50/60	1,32	1,33	1,29	1,28	1,35	1,47
Partial safety factor	γ_{inst}	[-]	1,0					
	γ_{Mp} [1)]	[-]	1,5 [2)]					
Concrete cone and splitting failure								
Effective anchorage depth	h_{ef}	[mm]	39,2	51,9	42,5	68,0	49,3	91,8
Factor for cracked concrete	k_{cr}	[-]	7,7					
Factor for non-cracked concrete	k_{ucr}	[-]	11,0					
Spacing	$s_{cr,N}$	[mm]	118	156	128	204	148	275
Edge distance	$c_{cr,N}$	[mm]	59	78	64	102	74	138
Spacing (splitting)	$s_{cr,sp}$	[mm]	118	176	128	232	148	275
Edge distance (splitting)	$c_{cr,sp}$	[mm]	59	88	64	116	74	138
Partial safety factor	γ_{Msp} [1)]	[-]	1,5 [2)]					

[1)] In absence of other national regulations

[2)] The installation safety factor of γ_{inst} = 1,0 is included

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus

Performance

Characteristic resistance under tension loads

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Annex C(1/7)

Table C2: Characteristic resistances under shear loads in case of static and quasi-static loading for design according to EN 1992-4:2018

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size					
			S-CSA+ 8 / JC2 Plus 8		S-CSA+ 10 / JC2 Plus 10		S-CSA+ 14 / JC2 Plus 14	
			8-1	8-2	10-1	10-2	14-1	14-2
Steel failure without lever arm								
Characteristic resistance	$V_{Rk,s}$	[kN]	19,1	21,5	31,8	35,2	61,1	64,9
Partial safety factor	γ_{Ms} [1)]	[-]	1,25					
Factor for considering ductility	k_7	[-]	0,8				1,0	
Steel failure with lever arm								
Characteristic resistance	$M^0_{Rk,s}$	[Nm]	37	45	72	84	207	227
Partial safety factor	γ_{Ms} [1)]	[-]	1,25					
Concrete pryout failure								
k-factor	k_8	[-]	3,4		3,0		3,3	
Partial safety factor	γ_{Mc} [1)]	[-]	1,5					
Concrete edge failure								
Effective length of anchor under shear load	l_f	[mm]	39,2	51,9	42,5	68,0	49,3	91,8
Outside diameter of anchor	d_{nom}	[mm]	8		10		14	
Partial safety factor	γ_{Mc} [1)]	[-]	1,5					

[1)] In absence of other national regulations

Sormat Concrete Screw Anchor S-CSA+ /
EJOT Concrete Screw Anchor JC2 Plus

Performance
Characteristic resistance under shear loads

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Annex C(2/7)

Table C3: Characteristic resistances under tension loads in case of fire exposure for design according to EN 1992-4:2018

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size					
			S-CSA+ 8 / JC2 Plus 8		S-CSA+ 10 / JC2 Plus 10		S-CSA+ 14 / JC2 Plus 14	
			8-1	8-2	10-1	10-2	14-1	14-2
Steel failure								
Characteristic resistance $N_{Rk,s,fi}$	R30	[kN]	0,42		0,99		2,65	
	R60	[kN]	0,38		0,85		1,99	
	R90	[kN]	0,30		0,66		1,73	
	R120	[kN]	0,21		0,53		1,33	
Pull-out failure								
Characteristic resistance $N_{Rk,p,fi}$	R30	[kN]	1,63	3,00	1,88	4,75	2,13	7,50
	R60	[kN]	1,63	3,00	1,88	4,75	2,13	7,50
	R90	[kN]	1,63	3,00	1,88	4,75	2,13	7,50
	R120	[kN]	1,30	2,40	1,50	3,80	1,70	6,00
Concrete cone and splitting failure [1)]								
Characteristic resistance $N^0_{Rk,c,fi}$	R30	[kN]	1,66	3,34	2,03	6,57	2,94	13,90
	R60	[kN]	1,66	3,34	2,03	6,57	294	13,90
	R90	[kN]	1,66	3,34	2,03	6,57	2,94	13,90
	R120	[kN]	1,33	2,67	1,62	5,25	2,35	11,12
Spacing	$s_{cr,N,fi}$	[mm]	$4 \times h_{ef}$					
	s_{min}	[mm]	35	35	40	40	60	60
Edge distance	$c_{cr,N,fi}$	[mm]	$2 \times h_{ef}$					
	c_{min}	[mm]	Fire attack from one side: $c_{min} = 2 \times h_{ef}$					
			Fire attack from more than one side: $c_{min} \geq 300$ mm and $\geq 2 \times h_{ef}$					

[1)] As a rule, splitting failure can be neglected when cracked concrete and reinforcement is assumed

Design under fire exposure is performed according to the design method given in EN 1992-4.

Under fire exposure usually cracked concrete is assumed. The design equations are given in EN 1992-4.

In the absence of other national regulations the partial safety factor for resistance under fire exposure $\gamma_{M,fi} = 1,0$ is recommended.

Sormat Concrete Screw Anchor S-CSA+ /
EJOT Concrete Screw Anchor JC2 Plus

Performance

Characteristic tension resistance under fire exposure

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Annex C(3/7)

Table C4: Characteristic resistances under shear loads in case of fire exposure for design according to EN 1992-4:2018

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size					
			S-CSA+ 8 / JC2 Plus 8		S-CSA+ 10 / JC2 Plus 10		S-CSA+ 14 / JC2 Plus 14	
			8-1	8-2	10-1	10-2	14-1	14-2
Steel failure without lever arm								
Characteristic resistance $V_{Rk,s,fi}$	R30	[kN]	0,42		0,99		2,65	
	R60	[kN]	0,38		0,85		1,99	
	R90	[kN]	0,30		0,66		1,73	
	R120	[kN]	0,21		0,53		1,33	
Steel failure with lever arm								
Characteristic resistance $M^0_{Rk,s,fi}$	R30	[Nm]	0,47	0,56	1,35	1,57	5,18	5,67
	R60	[Nm]	0,42	0,50	1,17	1,36	3,88	4,25
	R90	[Nm]	0,33	0,39	0,90	1,05	3,36	3,69
	R120	[Nm]	0,23	0,28	0,72	0,84	2,58	2,83
Concrete pryout failure								
k-factor	k_8	[-]	3,4		3,0		3,3	
Characteristic resistance $V_{Rk,cp,fi}$	R30	[kN]	5,64	11,36	6,09	19,71	9,70	45,87
	R60	[kN]	5,64	11,36	6,09	19,71	9,70	45,87
	R90	[kN]	5,64	11,36	6,09	19,71	9,70	45,87
	R120	[kN]	4,52	9,08	4,86	15,75	7,76	36,70
Concrete edge failure								

The initial value $V^0_{Rk,c,fi}$ of the characteristic resistance in concrete C20/25 to C50/60 under fire exposure may be determined by:

$$V^0_{Rk,c,fi} = 0{,}25 \times V^0_{Rk,c} \quad (\leq R90) \qquad V^0_{Rk,c,fi} = 0{,}20 \times V^0_{Rk,c} \quad (R120)$$

with $V^0_{Rk,c}$ initial value of the characteristic resistance in cracked concrete C20/25 under normal temperature.

Design under fire exposure is performed according to the design method given in EN 1992-4.

Under fire exposure usually cracked concrete is assumed. The design equations are given in EN 1992-4.

EN 1992-4 covers design for fire exposure from one side. For fire attack from more than one side the edge distance must be increased to $c_{min} \geq 300$ mm and $\geq 2 \times h_{ef}$.

In the absence of other national regulations the partial safety factor for resistance under fire exposure $\gamma_{M,fi} = 1{,}0$ is recommended.

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Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus

Performance

Characteristic shear resistance under fire exposure

Annex C(4/7)

Table C5: Displacements under tension loads for static and quasi-static loading

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size					
			S-CSA+ 8 / JC2 Plus 8		S-CSA+ 10 / JC2 Plus 10		S-CSA+ 14 / JC2 Plus 14	
			8-1	8-2	10-1	10-2	14-1	14-2
Cracked C20/25	**N**	**[kN]**	**3,10**	**5,71**	**3,57**	**9,05**	**4,05**	**14,29**
	δ_{N0}	[mm]	0,04	0,08	0,03	0,15	0,20	0,22
	$\delta_{N\infty}$	[mm]	0,65	0,94	0,48	0,89	1,65	1,52
Cracked C50/60	**N**	**[kN]**	**4,09**	**7,60**	**4,61**	**11,58**	**5,46**	**21,00**
	δ_{N0}	[mm]	0,05	0,13	0,09	0,14	0,24	0,32
	$\delta_{N\infty}$	[mm]	0,65	0,94	0,48	0,89	1,65	1,52
Non-cracked C20/25	**N**	**[kN]**	**5,76**	**8,76**	**6,48**	**13,14**	**7,14**	**20,00**
	δ_{N0}	[mm]	0,07	0,12	0.10	0,09	0,33	0,15
	$\delta_{N\infty}$	[mm]	0,65	0,94	0,48	0,89	1,65	1,52
Non-cracked C50/60	**N**	**[kN]**	**9,10**	**13,85**	**10,26**	**20,76**	**9,64**	**29,40**
	δ_{N0}	[mm]	0,17	0,26	0,07	0,33	0,17	0,23
	$\delta_{N\infty}$	[mm]	0,65	0,94	0,48	0,89	1,65	1,52

Table C6: Displacements under shear loads for static and quasi-static loading

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size					
			S-CSA+ 8 / JC2 Plus 8		S-CSA+ 10 / JC2 Plus 10		S-CSA+ 14 / JC2 Plus 14	
			8-1	8-2	10-1	10-2	14-1	14-2
Cracked and non-cracked concrete C20/25 - C50/60	**V**	**[kN]**	**10,91**	**12,29**	**18,17**	**20,11**	**34,91**	**37,09**
	δ_{V0}	[mm]	1,19	1,35	3,04	3,20	2,33	2,46
	$\delta_{V\infty}$	[mm]	1,79	2,02	4,56	4,80	3,50	3,69

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus

Performance

Displacements under tension and shear loads

Annex C(5/7)

Table C7: Characteristic resistances in case of seismic action for design acc. to EN 1992-4:2018: Performance Category C2

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size		
			S-CSA+ 8 / JC2 Plus 8	S-CSA+ 10 / JC2 Plus 10	S-CSA+ 14 / JC2 Plus 14
			M8-2	M10-2	M14-2
Tension - steel failure					
Characteristic resistance **C2**	$N_{Rk,s,C2}$	[kN]	33,9	52,6	106,2
Partial safety factor	$\gamma_{Ms,seis}$ [1)]	[-]	1,5		
Tension - pull-out failure					
Characteristic resistance **C2**	$N_{Rk,p,C2}$	[kN]	1,9	3,8	6,9
Partial safety factor	$\gamma_{Mp,seis}$ [1)]	[-]	1,5 [2)]		
Concrete cone and splitting failure [3)]					
Effective anchorage depth	h_{ef}	[mm]	51,9	68,0	91,8
Partial safety factor	$\gamma_{Mc,seis}$ [1)] $\gamma_{Msp,seis}$ [1)]	[-]	1,5 [2)]		
Shear - steel failure without lever arm					
Characteristic resistance **C2**	$V_{Rk,s,C2}$	[kN]	13,6	24,6	41,5
Partial safety factor	$\gamma_{Ms,seis}$ [1)]	[-]	1,25		
Concrete pryout and concrete edge failure [3)]					
Effective anchorage depth	h_{ef}	[mm]	51,9	68,0	91,8
Partial safety factor	$\gamma_{Mc,seis}$ [1)]	[-]	1,5 [2)]		

[1)] In absence of other national regulations
[2)] The installation safety factor of $\gamma_2 = 1,0$ is included
[3)] For concrete cone, splitting, pryout and edge failure, see EN 1992-4

Sormat Concrete Screw Anchor S-CSA+ /
EJOT Concrete Screw Anchor JC2 Plus

Performance

Characteristic resistances under seismic action
Performance category C2

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Annex C6 (6/7)

Table C8: Displacements in case of seismic action for design acc. to EN 1992-4:2018, Performance Category C2

Sormat Concrete Screw Anchor S-CSA+ / EJOT Concrete Screw Anchor JC2 Plus			Anchor size		
			S-CSA+ 8 / JC2 Plus 8	S-CSA+ 10 / JC2 Plus 10	S-CSA+ 14 / JC2 Plus 14
			M8-2	M10-2	M14-2
Displacement under tension loads					
Displacement **DLS**	$d_{N,C2}$	[mm]	1,34	0,97	1,85
Displacement **ULS**	$d_{N,C2}$	[mm]	1,70	1,90	4,70
Displacement under shear loads					
Displacement **DLS**	$d_{V,C2}$	[mm]	3,84	3,58	1,98
Displacement **ULS**	$d_{V,C2}$	[mm]	7,48	7,28	6,34

Sormat Concrete Screw Anchor S-CSA+ /
EJOT Concrete Screw Anchor JC2 Plus

Performance

Displacements under seismic action
Performance category C2

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Annex C8 (7)