

SOUDAFIX VE400-SF

Päiväys: 28/11/2022

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Tekniset tiedot:

Perusaine	Vinyyliesteri – styreenivapaa		
Olomuoto	Stabiili tahna		
Kuivumistapa	Kemiallinen reaktio		
Kuivumisaika (1) Patruunan lämpötila = 15°C (2) Kuivumisaika kuivalla pinnalla (20°C/65% R.H.) (x2 määrit pinnat)	<u>Lämpötila</u> ≥ -10°C ⁽¹⁾ ≥ -5°C ≥ 0°C ≥ 5°C ≥ 10°C ≥ 20°C ≥ 30°C ≥ 35°C ≥ 40°C	<u>Kuivuminen</u> <u>alkaa</u> 90 min 90 min 45 min 25 min 15 min 6 min 4 min 2 min 1,5 min	<u>Täysin kuiva</u> ⁽²⁾ 24 h 14 h 7h 2 h 80 min 45 min 25 min 20 min 15 min
Ominaispaino	1,77 g/cm ³		
Lämpötilankestävyys	- 40°C to + 120°C		
E-modulus	14000 N/mm ²		
Max. taivutuslujuus	15 N/mm ²		
Max. puristuslujuus	100 N/mm ²		

Tuotekuvaus:

SOUDAFIX VE400-SF on kaksikomponenttinen ankkurointihartsin kierretankojen (ETA: M8-M30), harjaterästen, raudoitustankojen (ETA: Ø8-Ø32), kierrekaulusten, profiilien jne. paineettomaan kiinnitykseen erilaisissa kiinteissä ja onttoissa materiaaleissa, kuten halkeileva ja halkeilematon betoni, massiivitiili, ontto tiili, huokoinen betoni, luonnonkivi (katso huomautukset), kipsilevyseinät jne.

Ominaisuudet:

- Helppo käyttää ja levittää
- Nopeasti kovettuva
- Laaja käyttöalue, jopa määritssä porausrei'issä, veden alla (ei merivettä) ja lämpötilassa. niinkin alhainen kuin -10°C
- Asennus kattoon sallittu
- Styreenivapaa (alhaiset hajut)
- Patruuna voidaan käyttää uudelleen vaihtamalla staattinen sekoitin
- Vesitiivis ja läpäisemätön kiinnitys
- Korkea kemiallinen kestävyys
- Palonkestoluokka R120 (M8-M30)

- Eurooppalainen tekninen arviointi ETA-10/0167, joka perustuu EAD 330499-00-0601:een, käytettäväksi halkeilemattomassa ja halkeilemattomassa betonissa.

- Eurooppalainen tekninen arviointi ETA-12/0558, joka perustuu EAD 330087-00-0601:een, sovellettavaksi jälkiasennetuissa raudoitusliitoksissa.

- Eurooppalainen tekninen arviointi ETA-21/0170, joka perustuu EAD 330076-00-0604:ään muuraukseen.

- Sisäilman päästöluokka A+.

Asennussovellukset:

Raskaiden kuormien kiinnitys kiinteisiin ja onttoihin rakennusmateriaaleihin. Painevapaa ankkurointi jopa lähellä reunoja. Voidaan käyttää korjauslaastina.

Pakkausko:

Väri: t.harmaa sekoituttuaan

Patruuna: 280 ml patruuna tavalliseen patruunapuristimeen, 380 ml patruuna 2k-puristimeen.

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18 kk alkuperäisissä pakkauksissa. Säilytys viileässä ja kuivassa, +5°C... +25°C lämpötiloissa.

Pinnat:

Materiaali: Kaikki tavalliset huokoiset rakennusmateriaalit, huono tarttuvuus sileille ei-huukoille materiaaleille.

Tila: Puhdas, pölytön ja rasvaton.

Asennus:

Asennustapa: standardipuristin 280 ml patruunalle, erityinen 2 komponenttipuristin 380 ml:lle, mieluiten raskaaseen käyttöön tarkoitettu.

Asennuslämpötila: -10°C ... +40°C

Puhdistus:

Ennen kovettumista: pyyhi ylimääräinen tuote pois ja puhdista sen jälkeen lakkabensiinillä tai asetonilla.

Kovettumisen jälkeen: On suositeltavaa antaa tuotteen kuivua kokonaan, jotta se voidaan helposti poistaa mekaanisesti vasaralla ja taltalla.

Korjaukset: samalla materiaalilla

Turvallisuussuositukset:

Noudata tavallisia teollisuushygieniaa koskevia varotoimia.

Käytä vain hyvin tuuletetuissa tiloissa.

Katso lisätietoja etiketistä.

Huomioita:

Huokoisilla alustoilla, kuten luonnonkivellä, on värjäytymisvaara.

Käyttöohjeet:

- Poraa reikä suositeltuun syvyyteen
- Puhdista porausreikä harjalla ja ilmapumpulla huolellisesti
- Kierrä staattinen sekoitin patruunaan
- Annostele ensimmäiset 10 cm tuotetta roskeen (kartonkipalalle), kunnes saavutetaan tasainen väri (tummanharmaa) ja tuote on hyvin sekoittunut
- Kiinteä kivi: täytä porausreikä alhaalta ylöspäin. Ontto tiili: aseta holkki sisään ja täytä se alhaalta ylöspäin niin, että hartsi puristuu holkin pienten reikien läpi
- Aseta ankkurointitanko kiertämällä vasemmalle oikealle
- Tarkista porausreiän riittävä täyttö
- Noudata kovettumisaikaa. Älä liikuta ankkurointitankoa kovettumisen aikana
- Jätä myös ylimääräinen tuote kovettua. Poista se mekaanisesti vasaralla ja taltalla, kun se on kovettunut
- Asenna komponentti oikeaa vääntömomenttia käyttämällä



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Kierretankojen asentaminen:

Kierretangon koko	d	mm	M8	M10	M12	M16	M20	M24	M27	M30
Poran halkaisija	D ₀	mm	10	12	14	18	24	28	32	35
Min. ankkurointisyvyys	h _{ef,min}	mm	60	60	70	80	90	96	108	120
Max. ankkurointisyvyys	h _{ef,max}	mm	160	200	240	320	400	480	540	600
Min. reunaetäisyys	c _{min}	mm	40	50	60	80	100	120	135	150
Min. aksiaalinen etäisyys	s _{min}	mm	40	50	60	80	100	120	135	150
Kiristysmomentti	T _{inst}	Nm	10	20	40	80	120	160	180	200

Harjaterästen asentaminen:

Harjateräksen koko	d	mm	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø28	Ø32
Poran halkaisija	D ₀	mm	12	14	16	18	20	24	32	35	40
Min. ankkurointisyvyys	h _{ef,min}	mm	60	60	70	75	80	90	100	112	128
Max. ankkurointisyvyys	h _{ef,max}	mm	160	200	240	280	320	400	500	580	640
Min. reunaetäisyys	c _{min}	mm	40	50	60	70	80	100	125	140	160
Min. aksiaalinen etäisyys	s _{min}	mm	40	50	60	70	80	100	125	140	160

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Table C1: Characteristic values for steel tension and shear resistance of threaded rods

Diameter threaded rods			M8	M10	M12	M16	M20	M24	M27	M30
Characteristic values for tension, steel failure										
Characteristic tensile strength, steel class 4.6 en 4.8	$N_{Rk,s}$	kN	15	23	34	63	98	141	184	224
Characteristic tensile strength, steel class 5.6 en 5.8	$N_{Rk,s}$	kN	18	29	42	78	122	176	230	280
Characteristic tensile strength, steel class 8.8	$N_{Rk,s}$	kN	29	46	67	125	196	282	368	449
Characteristic tensile strength, stainless steel A2, A4 and HCR class 50	$N_{Rk,s}$	kN	18	29	42	79	123	177	230	281
Characteristic tensile strength, stainless steel A2, A4 and HCR class 70	$N_{Rk,s}$	kN	26	41	59	110	171	247	-	-
Characteristic tensile strength, stainless steel A4 and HCR class 80	$N_{Rk,s}$	kN	29	46	67	126	196	282	-	-
Characteristic values for tension, partial factor										
Partial factor steel class 4.6	$\gamma_{Ms,N}^{1)}$		2.0							
Partial factor steel class 4.8	$\gamma_{Ms,N}^{1)}$		1.5							
Partial factor steel class 5.6	$\gamma_{Ms,N}^{1)}$		2.0							
Partial factor steel class 5.8	$\gamma_{Ms,N}^{1)}$		1.5							
Partial factor steel class 8.8	$\gamma_{Ms,N}^{1)}$		1.5							
Partial factor stainless steel A2, A4 and HCR class 50	$\gamma_{Ms,N}^{1)}$		2.86							
Partial factor stainless steel A2, A4 and HCR class 70	$\gamma_{Ms,N}^{1)}$		1.87							
Partial factor stainless steel A4 and HCR class 80	$\gamma_{Ms,N}^{1)}$		1.6							
Characteristic shear resistance, steel failure										
Steel failure without lever arm										
Characteristic shear resistance, steel class 4.6 and 4.8	$V_{Rk,s}^0$	kN	7	12	17	31	49	71	92	112
Characteristic shear resistance, steel class 5.6 and 5.8	$V_{Rk,s}^0$	kN	9	15	21	39	61	88	115	140
Characteristic shear resistance, steel class 8.8	$V_{Rk,s}^0$	kN	15	23	34	63	98	141	184	224
Characteristic shear resistance, stainless steel A2, A4 and HCR class 50	$V_{Rk,s}^0$	kN	13	20	30	55	86	124	115	140
Characteristic shear resistance, stainless steel A2, A4 and HCR class 70	$V_{Rk,s}^0$	kN	13	20	30	55	86	124	115	140
Characteristic shear resistance, stainless steel A4 and HCR class 80	$V_{Rk,s}^0$	kN	13	20	30	55	86	124	115	140
Steel failure with lever arm										
Characteristic shear resistance, steel class 4.6 and 4.8	$M_{Rk,s}^0$	kN	7	12	17	31	49	71	92	112
Characteristic shear resistance, steel class 5.6 and 5.8	$M_{Rk,s}^0$	kN	9	15	21	39	61	88	115	140
Characteristic shear resistance, steel class 8.8	$M_{Rk,s}^0$	kN	15	23	34	63	98	141	184	224
Characteristic shear resistance, stainless steel A2, A4 and HCR class 50	$M_{Rk,s}^0$	kN	13	20	30	55	86	124	115	140
Characteristic shear resistance, stainless steel A2, A4 and HCR class 70	$M_{Rk,s}^0$	kN	13	20	30	55	86	124	115	140
Characteristic shear resistance, stainless steel A4 and HCR class 80	$M_{Rk,s}^0$	kN	13	20	30	55	86	124	115	140
Characteristic shear resistance, partial factor										
Partial factor steel class 4.6	$\gamma_{Ms,V}^{1)}$		1.67							
Partial factor steel class 4.8	$\gamma_{Ms,V}^{1)}$		1.25							
Partial factor steel class 5.6	$\gamma_{Ms,V}^{1)}$		1.67							
Partial factor steel class 5.8	$\gamma_{Ms,V}^{1)}$		1.25							
Partial factor steel class 8.8	$\gamma_{Ms,V}^{1)}$		1.25							
Partial factor stainless steel A2, A4 and HCR class 50	$\gamma_{Ms,V}^{1)}$		2.38							
Partial factor stainless steel A2, A4 and HCR class 70	$\gamma_{Ms,V}^{1)}$		1.56							
Partial factor stainless steel A4 and HCR class 80	$\gamma_{Ms,V}^{1)}$		1.33							

¹⁾ In absence of national regulation

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Tabel C2: Characteristic values of tension loads under static, quasi-static and seismic action											
Diameter threaded rod				M8	M10	M12	M16	M20	M24	M27	M30
Characteristic values of tension loads, steel failure											
Characteristic tension resistance	$N_{Rk,s}$	kN	See table C1								
	$N_{Rk,s,eq}$	kN	$1,0 \cdot N_{Rk,s}$								
Partial factor	$\gamma_{Ms,N}$	-	See table C1								
Combined pull-out and concrete failure											
Characteristic bond resistance in non-cracked concrete C20/25											
Dry and wet concrete	Temperature range I: 40°C to 24°C	$T_{Rk,ucr}$	N/mm ²	10	12	12	12	12	11	10	9
	Temperature range II: 80°C to 50°C	$T_{Rk,ucr}$	N/mm ²	7.5	9	9	9	9	8.5	7.5	6.5
	Temperature range III: 120°C to 72°C	$T_{Rk,ucr}$	N/mm ²	5.5	6.5	6.5	6.5	6.5	6.5	5.5	5.0
Flooded bore hole	Temperature range I: 40°C tot 24°C	$T_{Rk,ucr}$	N/mm ²	7.5	8.5	8.5	8.5	No performance declared			
	Temperature range II: 80°C tot 50°C	$T_{Rk,ucr}$	N/mm ²	5.5	6.5	6.5	6.5				
	Temperature range III: 120°C tot 72°C	$T_{Rk,ucr}$	N/mm ²	4.0	5.0	5.0	5.0				
Characteristic bond resistance in cracked concrete C20/25											
Dry and wet concrete	Temperature range I: 40°C to 24°C	$T_{Rk,cr}$	N/mm ²	4,0	5,0	5,5	5,5	5,5	5,5	6,5	6,5
		$T_{Rk,cr,eq}$	N/mm ²	2,5	3,1	3,7	3,7	3,7	3,8	4,5	4,5
	Temperature range II: 80°C to 50°C	$T_{Rk,cr}$	N/mm ²	2,5	3,5	4,0	4,0	4,0	4,0	4,5	4,5
		$T_{Rk,cr,eq}$	N/mm ²	1,6	2,2	2,7	2,7	2,7	2,8	3,1	3,1
	Temperature range III: 120°C to 72°C	$T_{Rk,cr}$	N/mm ²	2,0	2,5	3,0	3,0	3,0	3,0	3,5	3,5
		$T_{Rk,cr,eq}$	N/mm ²	1,3	1,6	2,0	2,0	2,0	2,1	2,4	2,4
Flooded bore hole	Temperature range I: 40°C to 24°C	$T_{Rk,cr}$	N/mm ²	4,0	4,0	5,5	5,5	No performance declared			
		$T_{Rk,cr,eq}$	N/mm ²	2,5	2,5	3,7	3,7				
	Temperature range II: 80°C to 50°C	$T_{Rk,cr}$	N/mm ²	2,5	3,0	4,0	4,0				
		$T_{Rk,cr,eq}$	N/mm ²	1,6	1,9	2,7	2,7				
	Temperature range III: 120°C to 72°C	$T_{Rk,cr}$	N/mm ²	2,0	2,5	3,0	3,0				
		$T_{Rk,cr,eq}$	N/mm ²	1,3	1,6	2,0	2,0				
Increasing factors for concrete (only static and quasi-static action) ψ_c		C25/30		1.02							
		C30/37		1.04							
		C35/45		1.07							
		C40/50		1.08							
		C45/55		1.09							
		C50/60		1.10							
Concrete conce failure											
Non-cracked concrete		$k_{ucr,N}$	-	11,0							
Cracked concrete		$k_{cr,N}$	-	7,7							
Edge distance		$C_{cr,N}$	mm	$1,5 \cdot h_{ef}$							
Axial distance		$S_{cr,N}$	mm	$2 \cdot C_{cr,N}$							
Splitting											
Edge distance	$h/h_{ef} \geq 2,0$	$C_{cr,sp}$	mm	$1,0 \cdot h_{ef}$							
	$2,0 > h/h_{ef} > 1,3$	$C_{cr,sp}$	mm	$2 \cdot h_{ef} (2,5 - h/h_{ef})$							
	$h/h_{ef} \leq 3,0$	$C_{cr,sp}$	mm	$2,4 \cdot h_{ef}$							
Axial distance		$S_{cr,sp}$	mm	$2 \cdot C_{cr,sp}$							
Installation factor (dry and wet concrete)		γ_{inst}		1.0	1.2						
Installation factor (flooded bore hole)		γ_{inst}		1,4				No performance declared			

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Table C3: Characteristic values of shear loads under static, quasi-static and seismic action										
Diameter threaded rod			M8	M10	M12	M16	M20	M24	M27	M30
Steel failure without lever arm										
Characteristic shear resistance	$V_{Rk,s}^0$	kN	See table C1							
	$V_{Rk,s,eq}$	kN	$0,70 \cdot V_{Rk,s}^0$							
Partial factor	$\gamma_{Ms,V}$	-	See table C1							
Ductility factor	k_7	-	1,0							
Steel failure with lever arm										
Characteristic bending moment	$M_{k,s}^0$	Nm	See table C1							
	$M_{k,s,eq}^0$	Nm	No performance declared							
Partial factor	$\gamma_{Ms,V}$		See table C1							
Concrete pry-out failure										
Factor	k_8	-	2.0							
Installation factor	γ_{inst}	-	1.0							
Concrete edge failure										
Effective length of fastener	l_f	mm	$l_f = \min(h_{ef} ; 8 d_{nom})$							
Outside diameter of fastener	d_{nom}	mm	8	10	12	16	20	24	27	30
Installation factor	γ_{inst}	-	1.0							
Factor for annular gap	α_{gap}	-	$0,5 (1,0)^1$							

¹⁾ Value between brackets: see ETA-10/0167

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Table C6: Characteristic values of tension loads under static, quasi-static and seismic action												
Diameter reinforcing bar				Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 28	Ø 32
Steel failure												
Characteristic tension resistance		$N_{Rk,s}$	kN	$A_s \cdot x f_{tk}^{1)}$								
		$N_{Rk,s,eq}$	kN	$1,0 \cdot A_s \cdot x f_{tk}^{1)}$								
Cross section area		A_s	mm ²	50	79	113	154	201	314	491	616	804
Partiële veiligheidsfactor		$\gamma_{Ms,N}$		1,4 ²⁾								
Combined pull-out and concrete failure												
Characteristic bond resistance in non-cracked concrete C20/25												
Dry and wet concrete	Temperature range I: 40°C to 24°C	T_{Rkucr}	N/mm ²	10	12	12	12	12	12	11	10	8.5
	Temperature range II: 80°C to 50°C	T_{Rkucr}	N/mm ²	7.5	9	9	9	9	9	8.0	7.0	6.0
	Temperature range III: 120°C to 72°C	T_{Rkucr}	N/mm ²	5.5	6.5	6.5	6.5	6.5	6.5	6.0	5.0	4.5
Flooded bore hole	Temperature range I: 40°C to 24°C	T_{Rkucr}	N/mm ²	7.5	8.5	8.5	8.5	8.5	No performance declared			
	Temperature range II: 80°C to 50°C	T_{Rkucr}	N/mm ²	5.5	6.5	6.5	6.5	6.5				
	Temperature range III: 120°C to 72°C	T_{Rkucr}	N/mm ²	4.0	5.0	5.0	5.0	5.0				
Characteristic bond resistance in cracked concrete C20/25												
Dry and wet concrete	Temperature range I: 40°C to 24°C	T_{Rkucr}	N/mm ²	4,0	5,0	5,5	5,5	5,5	5,5	5,5	6,5	6,5
	Temperature range I: 40°C to 24°C	$T_{Rkucr,eq}$	N/mm ²	2,5	3,1	3,7	3,7	3,7	3,7	3,8	4,5	4,5
	Temperature range II: 80°C to 50°C	T_{Rkucr}	N/mm ²	2,5	3,5	4,0	4,0	4,0	4,0	4,0	4,5	4,5
	Temperature range II: 80°C to 50°C	$T_{Rkucr,eq}$	N/mm ²	1,6	2,2	2,7	2,7	2,7	2,7	2,8	3,1	3,1
	Temperature range III: 120°C to 72°C	T_{Rkucr}	N/mm ²	2,0	2,5	3,0	3,0	3,0	3,0	3,0	3,5	3,5
	Temperature range III: 120°C to 72°C	$T_{Rkucr,eq}$	N/mm ²	1,3	1,6	2,0	2,0	2,0	2,0	2,1	2,4	2,4
Flooded bore hole	Temperature range I: 40°C to 24°C	T_{Rkucr}	N/mm ²	4,0	4,0	5,5	5,5	5,5	No performance declared			
	Temperature range I: 40°C to 24°C	$T_{Rkucr,eq}$	N/mm ²	2,5	2,5	3,7	3,7	3,7				
	Temperature range II: 80°C to 50°C	T_{Rkucr}	N/mm ²	2,5	3,0	4,0	4,0	4,0				
	Temperature range II: 80°C to 50°C	$T_{Rkucr,eq}$	N/mm ²	1,6	1,9	2,7	2,7	2,7				
	Temperature range III: 120°C to 72°C	T_{Rkucr}	N/mm ²	2,0	2,5	3,0	3,0	3,0				
	Temperature range III: 120°C to 72°C	$T_{Rkucr,eq}$	N/mm ²	1,3	1,6	2,0	2,0	2,0				
Increasing factors for concrete (only static or quasi-static actions) Ψ_c		C25/30		1.02								
		C30/37		1.04								
		C35/45		1.07								
		C40/50		1.08								
		C45/55		1.09								
		C50/60		1.10								
Concrete cone failure												
Non-cracked concrete		$k_{ucr,N}$	-	11,0								
Cracked concrete		$k_{cr,N}$	-	7,7								
Edge distance		$C_{cr,N}$	mm	$1,5 \cdot h_{ef}$								
Axial distance		$S_{cr,N}$	mm	$2 \cdot C_{cr,N}$								
Splitting												
Edge distance	$h/h_{ef} \geq 2,0$	$C_{cr,sp}$	mm	$1,0 \cdot h_{ef}$								
	$2,0 > h/h_{ef} > 1,3$	$C_{cr,sp}$	mm	$2 \cdot h_{ef} (2,5 - h/h_{ef})$								
	$h/h_{ef} \leq 3,0$	$C_{cr,sp}$	mm	$2,4 \cdot h_{ef}$								
Axial distance		$S_{cr,sp}$	mm	$2 \cdot C_{cr,sp}$								
Installation factor (dry and wet concrete)		γ_{inst}		1.0					1.2			
Installation factor (flooded bore hole)		γ_{inst}		1.4					No performance declared			

¹⁾ f_{tk} shall be taken from the specifications of reinforcing bars

²⁾ In absence of national regulation

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Tabel C7: Characteristic values of shear loads under static, quasi-static and seismic action											
Diameter reinforcing bar			Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 28	Ø 32
Steel failure without lever arm											
Characteristic shear resistance	$V_{Rk,s}$	kN	$0,50 \times A_s \times f_{yk}^{1)}$								
	$V_{Rk,s,eq}$	kN	$0,35 \times A_s \times f_{yk}^{1)}$								
Cross section area	A_s	mm ²	50	79	113	154	201	214	491	616	804
Partial factor	$\gamma_{Ms,V}$	-	$1,5^{2)}$								
Ductility factor	k_7	-	1,0								
Steel failure with lever arm											
Characteristic bending moment	$M_{Rk,s}^0$	Nm	$1,2 \times W_{el} \times f_{yk}^{1)}$								
	$M_{Rk,s,eq}^0$	Nm	No performance declared								
Elastic section modulus	W_{el}	mm ³	50	98	170	269	402	785	1534	2155	3217
Partial factor	$\gamma_{Ms,V}$		$1,5^{2)}$								
Concrete pry-out failure											
Factor	k_8	-	2.0								
Installation factor	γ_{inst}	-	1,0								
Concrete edge failure											
Effective length of fastener	l_f	mm	$l_f = \min(h_{ef} ; 8 d_{nom})$								
Outside diameter of fastener	d_{nom}	mm	8	10	12	14	16	20	25	28	32
Installation factor	γ_{inst}	-	1.0								
Factor for annular gap	α_{gap}	-	$0,5 (1,0)^{3)}$								

¹⁾ f_{tk} shall be taken from the specifications of reinforcing bars

²⁾ In absence of national regulation

³⁾ Value in brackets: see ETA-10/0167

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