

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-08/0262
of 17 October 2017

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

SFS intec Flat Roof Fasteners

Product family
to which the construction product belongs

Fasteners for flexible roof waterproofing systems

Manufacturer

SFS intec AG
FasteningSystems
Rosenbergsaustraße 10
9435 HEERBRUGG
SCHWEIZ

Manufacturing plant

Factory 1 to factory 15, factory 18 to factory 23

This European Technical Assessment
contains

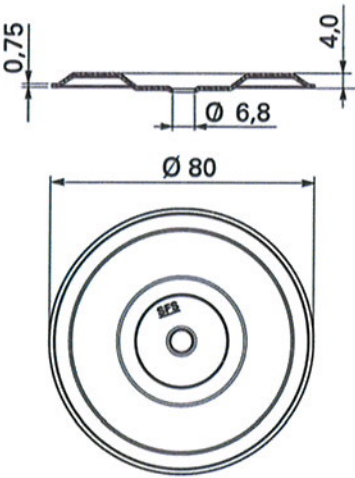
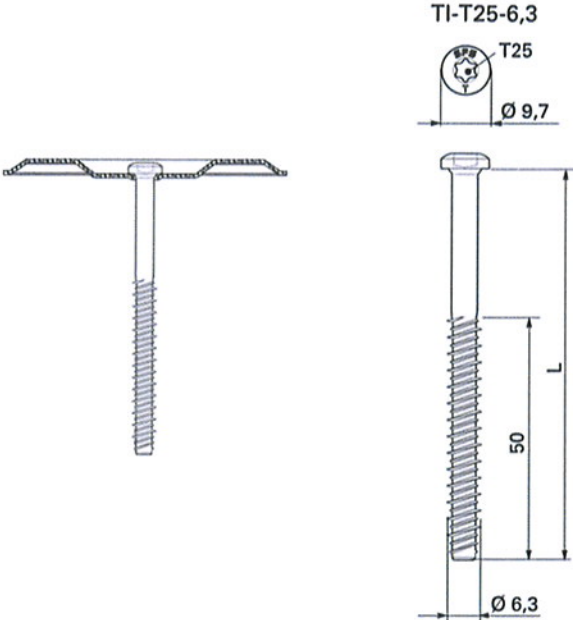
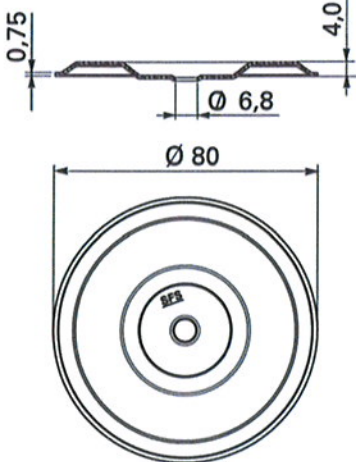
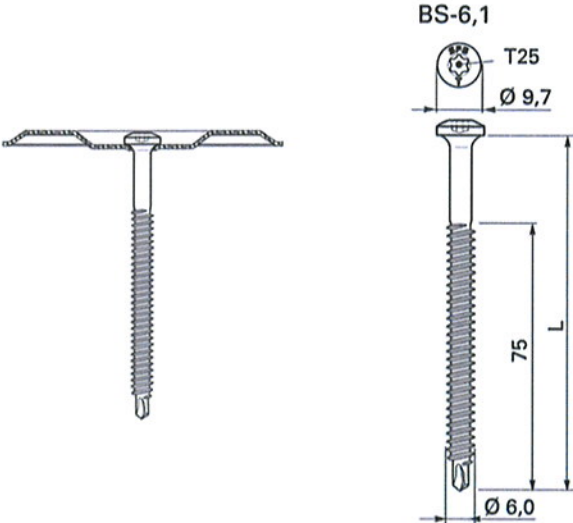
114 pages including 109 annexes which form an integral
part of this assessment

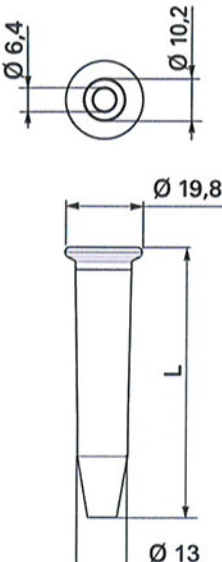
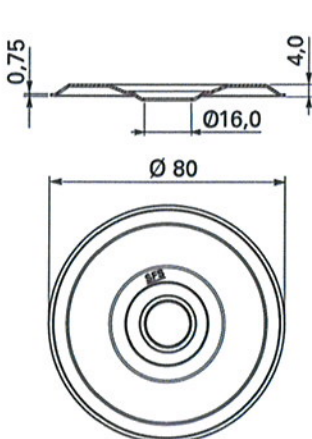
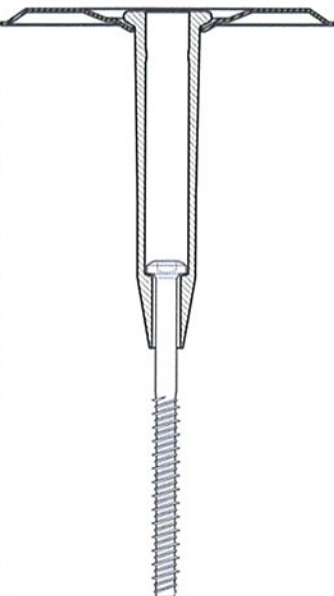
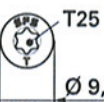
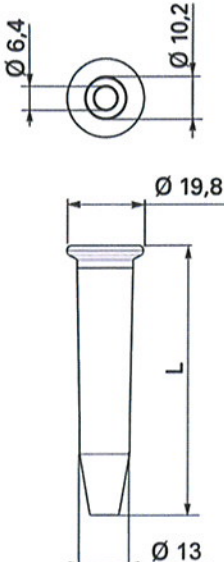
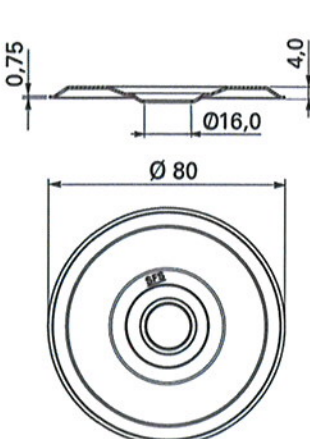
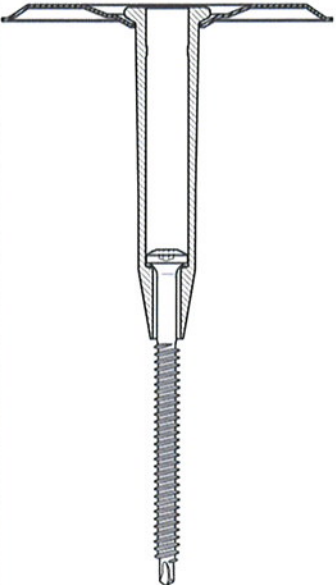
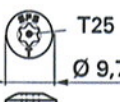
This European Technical Assessment is
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No 305/2011, on the basis of

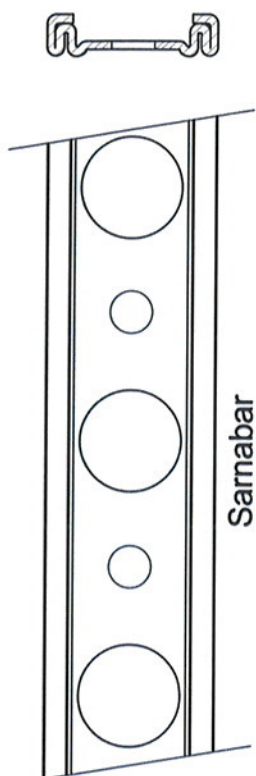
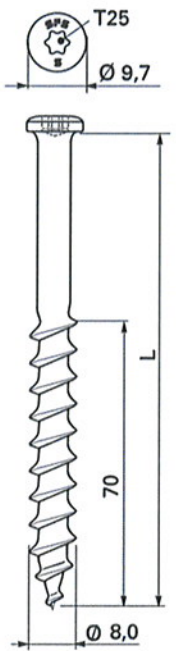
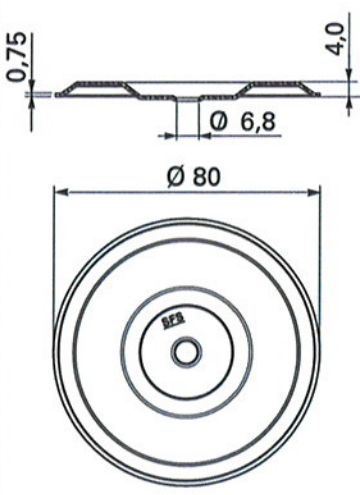
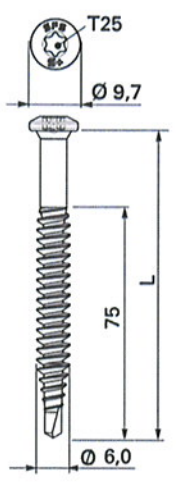
ETAG 006,
used as EAD according to Article 66 Paragraph 3 of
Regulation (EU) No 305/2011.

This version replaces

ETA-08/0262 issued on 25 April 2013

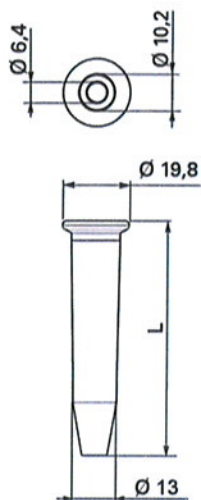
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SFS intec flat roof fasteners	Annex 40

<p>Combination 47A TI-T25-6,3 / FI-P-16,0 / FI-R-20</p>	<p>Combination 47B BS-6,1 / FI-P-16,0 / FI-R-20</p>
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<p>SFS intec flat roof fasteners</p>	<p>Annex 47</p>

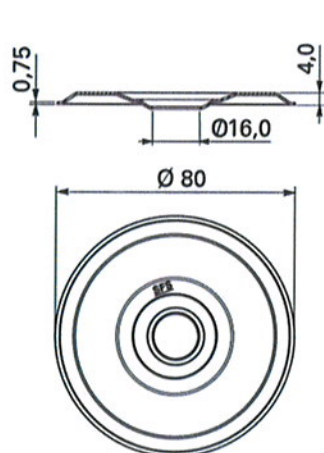
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 <p>Sarnabar</p> <p>LBS-S-T25-8,0</p> 	<p>FI-P-6,8</p>  <p>BS-S-6,1</p> 
SFS intec flat roof fasteners	
Annex 81	

Combination 82A
BS-S-6,1 / FI-P-16,0 / FI-R-20

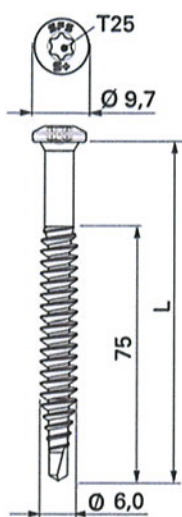
FI-R-20



FI-P-16,0

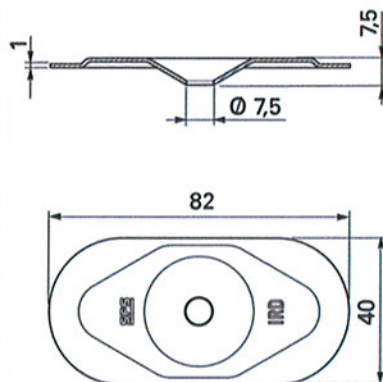


BS-S-6,1

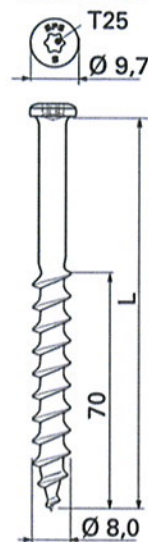


Combination 82B
LBS-S-T25-8,0 / IRD-82x40

IRD-82x40



LBS-S-T25-8,0



Combination	SFS intec flat roof fastener		Characteristic axial loading resistance N _{R,k} [kN] for metallic substructures														
			Steel sheets S320GD ¹⁾ EN 10346 t ≥ [mm]									Steel sheets S350GD EN 10346 t ≥ [mm]		Steel sheets S420GD EN 10346 t ≥ [mm]		Perforated Steel sheets S320GD EN 10346 t ≥ 0,75 mm	Aluminium sheets R _m ≥ 195 N/mm ² t ≥ 0,60 mm
			0,50	0,63	0,70	0,75	0,80	0,88	1,00	1,25	1,50	0,70	1,00	0,65	0,75		
11A	BS-6,7	R75	-	-	-	-	-	-	-	-	-	-	-	-	-	0,87	-
11B	BS-6,7	TPS	-	-	-	-	-	-	-	-	-	-	-	-	-	0,87	-
12A	BS-S-6,7	R45	-	-	-	-	-	-	-	-	-	-	-	-	-	0,87	-
12B	BS-S-6,7	R75	-	-	-	-	-	-	-	-	-	-	-	-	-	0,87	-
13A	BS-S-6,7	TPS	-	-	-	-	-	-	-	-	-	-	-	-	-	0,87	-
13B	TPR-L-6,3	IRD-82x40	0,99 ²⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	0,69 ²⁾
28B	BS-4,8	Sarnafast Tube SFT-50	-	1,09	1,34	1,52	1,66	1,66	1,66	1,66	-	1,44	1,66	1,39	1,66	-	-
29A	BS-4,8	Sarnabar Tube SBT-20 / Sarnabar	-	1,09	1,34	1,52	1,67	1,91	2,09	2,09	-	1,44	2,09	1,39	1,74	-	-
29B	BS-S-4,8	Sarnafast Tube SFT-50	-	0,87	1,09	1,24	1,38	1,61	1,66	-	-	-	-	-	-	-	-
30A	BS-S-4,8	Sarnabar Tube SBT-20 / Sarnabar	-	0,87	1,09	1,24	1,38	1,61	1,96	-	-	-	-	-	-	-	-
30B	Sarnafast SF-4,8	Sarnafast KT-82x40	-	1,09	1,34	1,52	1,67	1,91	2,27	3,15	-	1,44	2,27	1,39	1,74	-	-
31A	Sarnafast SF-4,8	Sarnafast DT-70x70	-	1,09	1,34	1,52	1,67	1,91	2,27	3,15	-	1,44	2,27	1,39	1,74	-	-
31B	Sarnafast SBF-6,0	Sarnafast Tube SFT-50	-	1,17	1,38	1,53	1,63	1,66	1,66	1,66	-	1,58	1,66	1,57	1,66	-	-
32A	Sarnafast SBF-6,0	Sarnabar Tube SBT-20 / Sarnabar	-	1,17	1,38	1,53	1,63	1,80	2,04	2,10	-	1,58	2,10	1,57	1,92	-	-
35A	IF2-6,1	IRD-82x40	-	1,11	-	-	-	-	1,16	-	-	-	-	-	-	-	-
35B	IF2-6,1	ID-70x70	-	1,11	-	-	-	-	1,16	-	-	-	-	-	-	-	-
39A	BS-4,8	FI-P-6,8	-	1,09	1,34	1,52	1,67	1,91	2,27	2,29	-	1,44	2,27	1,39	1,74	-	-
39B	BS-S-4,8	FI-P-6,8	-	0,87	1,09	1,24	1,38	1,61	1,96	-	-	-	-	-	-	-	-
40B	BS-6,1	FI-P-6,8	-	1,17	1,38	1,53	1,63	1,80	2,04	2,83	-	1,58	2,19	1,57	1,92	-	-
44B	Sarnafast SBF-6,0	FI-P-6,8	-	1,17	1,38	1,53	1,63	1,80	2,04	2,83	-	1,58	2,19	1,57	1,92	-	-

¹⁾ for steel sheets S280GD the values have to be reduced to 92%
²⁾ predrill-diameter = 7,0 mm

¹⁾ for steel sheets S280GD the values have to be reduced to 92%

²⁾ predrill-diameter = 7,0 mm

SFS intec flat roof fasteners

Annex 96

Combination	SFS intec flat roof fastener		Characteristic axial loading resistance N_{Rk} [kN] for metallic substructures														
			Steel sheets S320GD ¹⁾ EN 10346 $t \geq$ [mm]									Steel sheets S350GD EN 10346 $t \geq$ [mm]		Steel sheets S420GD EN 10346 $t \geq$ [mm]		Perforated Steel sheets S320GD EN 10346 $t \geq 0,75$ mm	Aluminium sheets $R_m \geq 195$ N/mm ² $t \geq 0,60$ mm
			0,50	0,63	0,70	0,75	0,80	0,88	1,00	1,25	1,50	0,70	1,00	0,65	0,75		
75B	Sarnafast SBF-6,0	Sarnabar	-	1,17	1,38	1,53	1,63	1,80	2,04	2,91	-	1,58	2,19	1,57	1,92	-	-
76A	Sarnafast SBF-S-6,0	Sarnabar	-	1,21	1,47	1,66	1,81	2,04	2,39	-	-	-	-	-	-	-	-
76B	IR2-4,8	Sarnabar	-	1,09	1,34	1,52	1,67	1,91	2,27	3,15	-	1,44	2,27	1,39	1,74	-	-
81B	BS-S-6,1	FI-P-6,8	-	1,21	1,47	1,66	1,81	2,04	2,39	-	-	-	-	-	-	-	-
82A	BS-S-6,1	FI-P-16,0 / FI-R-20	-	1,21	1,47	1,66	1,81	2,04	2,17	-	-	-	-	-	-	-	-
85A	TPR-L-6,3	FI-P-6,8	0,99 ²⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	0,69 ²⁾
87B	TPR-L-6,3	IL-C-82x40	0,99 ²⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	0,69 ²⁾
88A	BS-4,8	IPF45 / FI-R-20	-	1,09	1,34	1,52	1,67	1,91	2,21	2,21	-	1,44	2,21	1,39	1,74	-	-
88B	BS-4,8	IPF45 / FI-R-20	-	1,09	1,34	1,52	1,67	1,91	2,21	2,21	-	1,44	2,21	1,39	1,74	-	-
89A	BS-4,8	Isolfast SQT	-	1,09	1,34	1,45	1,45	1,45	1,45	1,45	-	1,44	1,45	1,39	1,45	-	-
89B	Sarnafast SF-4,8	IF/IG-C-82x40	-	1,09	1,34	1,52	1,67	1,91	2,27	3,15	-	1,44	2,27	1,39	1,74	-	-
90B	Sarnafast SBF-6,0	Sarnaweld disc 6,8	-	1,17	1,38	1,53	1,63	1,80	2,04	2,83	-	1,58	2,19	1,57	1,92	-	-
91A	Sarnafast SBF-6,0	Sarnaweld disc 16 / Sarnabar Tube SBT-20	-	1,17	1,38	1,53	1,63	1,80	2,04	2,17	-	1,58	2,17	1,57	1,92	-	-
91B	Sarnafast SBF-S-6,0	Sarnabar disc 6,8	-	1,21	1,47	1,66	1,81	2,04	2,39	-	-	-	-	-	-	-	-
92A	Sarnafast SBF-S-6,0	Sarnaweld disc 16 / Sarnabar Tube SBT-20	-	1,21	1,47	1,66	1,81	2,04	2,17	-	-	-	-	-	-	-	-
92B	IR2-S-4,8	Sarnabar	-	0,90	1,13	1,29	1,43	1,62	1,97	-	-	-	-	-	-	-	-
93A	IR3-4,8	Sarnabar	-	-	-	-	-	-	1,26	2,00	2,63	-	-	-	-	-	-
94A	IR2-4,8	Sarnafast KT-82x40	-	1,09	1,34	1,52	1,67	1,91	2,27	3,15	-	1,44	2,27	1,39	1,74	-	-
94B	BSF-N-6,1	RH45	-	1,17	1,38	1,53	1,54	1,54	1,54	1,54	-	1,54	1,54	1,54	1,54	-	-

¹⁾ for steel sheets S280GD the values have to be reduced to 92%

²⁾ predrill-diameter = 7,0 mm

SFS intec flat roof fasteners

Annex 99

Combination	SFS intec flat roof fastener		Characteristic axial loading resistance $N_{R,k}$ [kN] for non-metallic substructures												
			Timber			Concrete EN 206-1				Aerated Concrete DIN 4223-1			Pumice Panel EN 1520		
			OSB3 EN 300 $t \geq 18 \text{ mm}^{1)}$	Structural Timber EN 338 / C24 $t \geq 22 \text{ mm}^{2)}$	Plywood EN 636 $t \geq 18 \text{ mm}^{3)}$	C12/15	C25/30	setting depth \geq [mm]	pre-drill diameter [mm]	P 3.3	P 4.4	setting depth \geq [mm]	LAC 6, D 1,0	setting depth \geq [mm]	pre-drill diameter [mm]
	Fastener	Stress Plate / Sleeve / Bar													
SFS intec flat roof fasteners	40A	TI-T25-6,3	-	-	-	1,83	1,83	20	5,0	-	-	-	-	-	-
						2,73	2,83	30							
	40B	BS-6,1	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-	-
	41A	DT-4,8	-	-	-	2,40	2,83	25	4,8	-	-	-	-	-	-
	41B	DT-S-4,8	-	-	-	2,65	2,83	25	4,8	-	-	-	-	-	-
	42A	DT-6,3	-	-	-	2,93	3,82	32	6,3	-	-	-	-	-	-
	42B	DT-S-6,3	-	-	-	2,23	3,10	32	6,3	-	-	-	-	-	-
	43A	LBS-T25-8,0	-	-	-	-	-	-	-	0,93	1,44	60	-	-	-
	43B	LBS-S-T25-8,0	-	-	-	-	-	-	-	0,93	1,44	60	-	-	-
	44A	TS-T25-6,0	1,31	1,43	2,30	0,44	0,89	32	5,0	1,07	1,78	75	-	-	-
						2,83	2,83	50							
	44B	Sarnafast SBF-6,0	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-	-
	45A	Sarnafast SBF-S-6,0	1,25	2,02	2,22	0,42	0,84	32	5,0	0,82	1,37	75	-	-	-
	45B	FB-S-T25-7,5	-	-	-	-	-	-	-	-	-	-	0,59	50	4,8
	46A	BS-4,8	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-	-
	46B	BS-S-4,8	1,28	1,74	1,96	-	-	-	-	-	-	-	-	-	-
	47A	TI-T25-6,3	-	-	-	1,83	1,83	20	5,0	-	-	-	-	-	-
						2,17	2,17	30							
Annex 104	47B	BS-6,1	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-	-
	48A	DT-4,8	-	-	-	2,17	2,17	25	4,8	-	-	-	-	-	-
¹⁾ effective setting depth (penetration length of threaded part) $\geq 18 \text{ mm}$ ²⁾ effective setting depth (penetration length of threaded part) $\geq 22 \text{ mm}$ ³⁾ effective setting depth (penetration length of threaded part) $\geq 18 \text{ mm}$; minimum density = 400 kg/m^3															

Combination	SFS intec flat roof fastener		Characteristic axial loading resistance $N_{R,k}$ [kN] for non-metallic substructures												
			Timber			Concrete EN 206-1				Aerated Concrete DIN 4223-1			Pumice Panel EN 1520		
			OSB3 EN 300 $t \geq 18 \text{ mm}^{1)}$	Structural Timber EN 338 / C24 $t \geq 22 \text{ mm}^{2)}$	Plywood EN 636 $t \geq 18 \text{ mm}^{3)}$	C12/15	C25/30	setting depth \geq [mm]	pre-drill diameter [mm]	P 3.3	P 4.4	setting depth \geq [mm]	LAC 6, D 1,0	setting depth \geq [mm]	pre-drill diameter [mm]
	Fastener	Stress Plate / Sleeve / Bar													
SFS intec flat roof fasteners	81B	BS-S-6,1	FI-P-6,8	1,25	2,02	2,22	-	-	-	-	-	-	-	-	-
	82A	BS-S-6,1	FI-P-16,0 / FI-R-20	1,25	2,02	2,17	-	-	-	-	-	-	-	-	-
	82B	LBS-S-T25-8,0	IRD-82x40	-	-	-	-	-	-	0,93	1,44	60	-	-	-
	83A	LBS-T25-8,0	IRD-82x40	-	-	-	-	-	-	0,93	1,44	60	-	-	-
	83B	LBS-T25-8,0	IF/IG-C-82x40	-	-	-	-	-	-	0,93	1,44	60	-	-	-
	84A	IWF-S-5,2	FI-P-6,8	1,35	1,94	2,20	-	-	-	-	-	-	-	-	-
	84B	IW-S-5,0	FI-P-6,8	1,08	1,12	2,04	-	-	-	-	-	-	-	-	-
	85B	DT-4,8	ID-70x70	-	-	-	2,40	2,56	25	4,8	-	-	-	-	-
	86A	DT-6,3	ID-70x70	-	-	-	2,93	3,68	32	6,3	-	-	-	-	-
	86B	DT-4,8	R75	-	-	-	1,39	1,39	25	4,8	-	-	-	-	-
	87A	DT-S-4,8	R75	-	-	-	1,39	1,39	25	4,8	-	-	-	-	-
	88A	BS-4,8	IPF45 / FI-R-20	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-
	88B	BS-4,8	IPF45 / FI-R-20	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-
	89A	BS-4,8	Isolfast SQT	1,45	1,32	1,45	-	-	-	-	-	-	-	-	-
	89B	Sarnafast SF-4,8	IF/IG-C-82x40	1,45	1,32	2,18	-	-	-	-	-	-	-	-	-
	90A	LBS-T25-8,0	Sarnabar	-	-	-	-	-	-	0,93	1,44	60	-	-	-
	90B	Sarnafast SBF-6,0	Sarnaweld disc 6,8	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-
	91A	Sarnafast SBF-6,0	Sarnaweld disc 16 / Sarnabar Tube SBT-20	1,32	2,16	2,11	0,72	1,45	32	5,0	0,35	0,58	75	-	-
	91B	Sarnafast SBF-S-6,0	Sarnaweld disc 6,8	1,25	2,02	2,22	0,42	0,84	32	5,0	0,82	1,37	75	-	-
	92A	Sarnafast SBF-S-6,0	Sarnaweld disc 16 / Sarnabar Tube SBT-20	1,25	2,02	2,17	0,42	0,84	32	5,0	0,82	1,37	75	-	-
Annex 108	¹⁾ effective setting depth (penetration length of threaded part) $\geq 18 \text{ mm}$														
	²⁾ effective setting depth (penetration length of threaded part) $\geq 22 \text{ mm}$														
	³⁾ effective setting depth (penetration length of threaded part) $\geq 18 \text{ mm}$; minimum density = 400 kg/m ³														