

# ROOFING

Sika-Trocal® Fastener Systems

Selector Guide





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### INTRODUCTION

This selector guide has been created as an easy to use reference document, identifying the most common fasteners and components for use when installing Sika-Trocal® roofing systems.

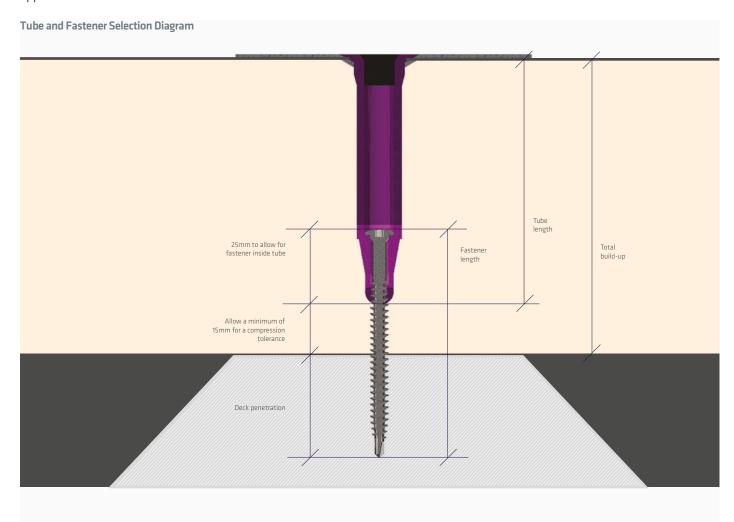
If you have any queries regarding our products or services then please do contact our customer services team on:

**01707 358514** or by emailing **roofingcustomerservices@uk.sika.com** 

# FASTENING SYSTEM

The Sika-Trocal® fasteners have been designed to fix to various different substrates. The diagram below and table on page 4 detail which tube and fastener should be used. If you require assistance, please contact our Roofing Technical Services.

Stainless Steel - A4 Stainless fasteners should be used for all 25 year guarantees, in environmental classification C5 - Marine areas up to 2km from the sea containing chlorides and very high levels of salinity, including highly polluted industrial areas with near permanent condensation (outside the splash zone). This does not include swimming pools, please contact us to discuss this application.



Application	Minimum Penetration / Embedment
Steel decking	15mm through underside
Plywood	18mm minimum thickness 12mm through underside
Timber decking	25mm minimum thickness 12mm through underside
Timber joists	35mm embedment
Structural concrete	25mm embedment

Selector chart

Tube and fastener selector chart to aid in selecting the correct products to suit various applications.

INSULATION THICKNESS	TUBE LENGTH	DRIVE BAR LENGTH	STEEL	_ DECK	CONC	RETE	PLYV	VOOD
			SF-RS-5.8	SF-RS- SSA4.4.8	SF-RS-6.1	SF-RS- SSA4-6.1	SF-R-5.8	SF-RS- SSA4-4.8
60	40	160	65	60	75	80	75	80
70	40	150	75	80	85	120	85	100
80	40	150	85	80	100	120	95	100
90	75	150	55	60	75	80	75	80
100	75	150	65	80	75	80	85	80
110	75	150	75	80	85	120	95	100
120	100	150	65	60	75	80	75	80
130	100	150	75	80	85	80	85	100
140	125	200	55	60	75	80	75	80
150	125	200	65	80	75	80	75	80
160	125	200	75	80	85	120	95	100
170	150	200	65	60	75	80	75	80
180	150	200	75	80	85	80	85	100
190	150	200	85	80	100	120	95	100
200	150	200	95	100	100	120	105	120
210	150	200	105	100	125	120	115	120
220	150	200	115	120	125	120	155	160
230	150	200	125	120	150		150	160
240	150	200	150	160	150		150	160
250	150	200	150	160	150		175	160
260	150	200	150	160	175		175	200
270	150	200	175	160	175		175	200
280	150	200	175	200	200		200	200
290	150	200	200	200	200		200	200
300	150	200	200	200	200		250	
310	150	200	200	200	225		250	
320	150	200	250		225		250	
330	150	200	250		250		250	
340	150	200	250		250		250	
350	150	200	250		250		300	
360	150	200	250		275		300	
370	150	200	300		275		300	
380	150	200	300		300		300	
390	150	200	300		300		300	
400	150	200	300		300			

Disc fixing with tubes and fasteners

### **DISC FIXING WITH TUBES**

Use tube washer low profile with SF-TLP plug.





The SikaRoof® Tube SF-TLP is compatible with the S3 Trocal disc.

Product Code	Minimum build up (mm)	Tube length (mm)
SikaRoof® Tube SF-TLP x 40	55	40
SikaRoof® Tube SF-TLP x 75	90	75
SikaRoof® Tube SF-TLP x 100	115	100
SikaRoof® Tube SF-TLP x 125	140	125
SikaRoof® Tube SF-TLP x 150	165	150

### **FASTENERS WITH STEEL AND TIMBER DECKS**

Use SikaRoof® Fastener SF-RS-5.8.

Refer to selector chart on page 4.

The fastener is compatible with the SikaRoof® Tube SF-TLP tube. It can also be used for fixing Trocal metal. Use Torx TX25.





Product Code	Drilling capacity into steel
SikaRoof® Tube SF-RS-5.8 x 40	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 55	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 65	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 75	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 85	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 95	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 105	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 115	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 125	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 150	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 175	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 200	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 250	2 x 1.0mm
SikaRoof® Tube SF-RS-5.8 x 300	2 x 1.0mm

Fasteners

### **FASTENERS FOR CONCRETE DECKS**

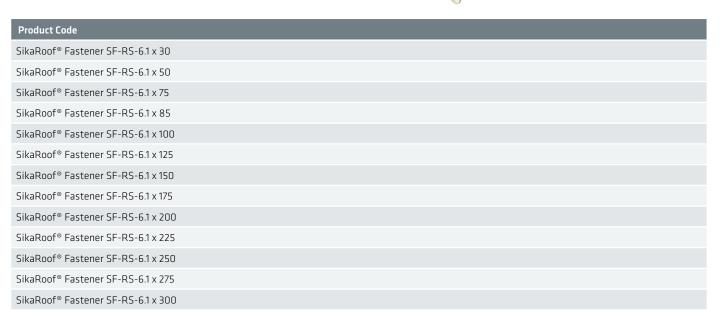
Use SikaRoof® Fastener SF-RS-6.1. 5mm pilot hole required. A site pull test is required.

Refer to selector chart on page 4.

The above fastener is compatible with the SikaRoof® Tube SF-TLP or can be used with the S1 Trocal disc. It can also be used for fixing Trocal metal.

Use Torx TX25.





### STAINLESS STEEL FASTENER FOR STEEL AND 18MM PLY/OSB DECKS

Use SikaRoof® Fastener SF-RS-SSA4-4.8.

Refer to selector chart on page 4.

The above fastener is compatible with the SF-TLP Tube or can be used with the S1 Trocal disc. It can also be used for fixing Trocal metal.

Use Torx TX25.



Product Code	Drilling capacity into steel
SikaRoof® Fastener SF-RS-SSA4-4.8 x 40	2 x 1.0mm
SikaRoof® Fastener SF-RS-SSA4-4.8 x 60	2 x 1.0mm
SikaRoof® Fastener SF-RS-SSA4-4.8 x 80	2 x 1.0mm
SikaRoof® Fastener SF-RS-SSA4-4.8 x 100	2 x 1.0mm
SikaRoof® Fastener SF-RS-SSA4-4.8 x 120	2 x 1.0mm
SikaRoof® Fastener SF-RS-SSA4-4.8 x 160	2 x 1.0mm
SikaRoof® Fastener SF-RS-SSA4-4.8 x 200	2 x 1.0mm

Fasteners

### STAINLESS STEEL FASTENER FOR CONCRETE DECKS

Use stainless A4/316. 5mm pilot hole required. A site pull-test is required. Compatible with the SikaRoof® Tube SF-TLP tube. Use Torx TX25.



### **Product Code**

SikaRoof® Fastener SF-RS-SSA4-6.1 x 50

SikaRoof® Fastener SF-RS-SSA4-6.1 x 80

SikaRoof® Fastener SF-RS-SSA4-6.1 x 120

# **ACCESSORIES**

### **TX25 DRIVEBAR**

One-piece drivebar for all fasteners.

Product Code: 50-TX25



### **TX25 DRIVEBAR**

One-piece drivebar for SureFast fasteners.

Product Code: 150-TX25, 200-TX25, 300-TX25



### **DRILL EXTENDER**

Drill extender for use in conjunction with STOPP drills.



### STOPP DRILLS

Masonry drill with coring and depth stop feature for exact pilot hole drill depth. Must be used in conjunction with Drill Extender.





Many other tools and accessories are available.

Please see the current Fixfast Product Directory, go to www.fixfast.com, or ask the Fixfast customer service team.

# TECHNICAL DATA

Tube Washers	
Material	High quality virgin polypropylene
Pull-over value (fastener to tube washer connection).	
Fastener	Characteristic value
SF-TLP	1.55 kN

SF-RS-5.8 Fasteners			
Material	Steel SAE1022 Case hardened		
Coating	Multiple layer organic		
Drilling Capacity	2 x 1.0mm S275 steels		
Pull-out Values (axial load resistance)			
Substrate	Characteristic value		
0.7mm Steel	1.43kN		
0.9mm Steel	1.93kN		
1.2mm Steel	2.87kN		

SF-RS -6.1 Fasteners			
Material	Steel SAE1022 Case hardened and 1.4401 stainless steel (316M) with carbon steel case hardened		
Coating	Multiple layer organic		
Pull-out Values (axial load resistance)			
Substrate	Characteristic value		
Concrete C25/30	1.98kN		

SF-RS-SSA4-4.8 Fasteners			
Material	1.4401 stainless steel (316M) with carbon steel case hardened		
Coating	Organic		
Drilling Capacity	2 x 1.0mm S275 steel		
Pull-out Values (axial load resistance)			
Substrate	Characteristic value		
0.7mm Steel	1.08kN		
0.9mm Steel	1.45kN		
1.2mm Steel	2.24kN		
18.0mm Ply	1.77kN		
18.0mm OSB	1.37kN		

## TECHNICAL NOTES

### **FASTENER DATA**

- All dimensions are subject to manufacturing tolerances
- Performance values are tested and calculated according to Eurocode procedures and appropriate safety factors should be applied in any calculations using these values

### **FASTENER SELECTION**

- Recommended fastener lengths are calculated using standard tolerances for the fasteners and the combination of materials in the build-up.
- If there is distortion in the supporting construction, or other non-standard application detail, longer fasteners may be necessary than those shown. Always check the actual circumstances before deciding on a particular length.

### **FURTHER ASSISTANCE**

- For any order enquiry, call the Sika Roofing Customer Service Team on 01707 358514.
- Site visits for pull-out performance into new build concrete, decks and refurbishment projects are requested online at www.fixfast.com
- CAD files of fasteners are available on request for inclusion in drawings.

The information contained in this document is based on the specification of the Sika Trocal system and product data. It is provided in good faith but Sika Limited cannot be held liable for any errors. Performance is dependent on adherence to the conditions and instructions contained in Sika Limited Technical Data Sheets for the products shown. Performance values should be approved by a qualified engineer, and Sika Limited recommend preliminary tests for any application where variation is possible in the materials or substrates involved.

# NOTES

# SIKA FULL RANGE SOLUTIONS FOR CONSTRUCTION:



















# FOR MORE INFORMATION:



### **WHO WE ARE**

Sika Limited and Sika Ireland Limited are part of the global Sika Group, specialising in the manufacture and supply of chemical based products. Sika has a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing, and protecting in the building sector and the motor vehicle industry. Sika has subsidiaries in 101 countries around the world and manufactures in over 300 factories. With more than 24,000 employees Sika generates annual sales of CHF 7.09 billion (£5.45bn). We are also committed to providing quality, service, safety and environmental care.

In the UK and Ireland, we provide market-leading solutions for concrete, waterproofing, roofing, flooring, refurbishment, sealing & bonding, and industry, and have manufacturing sites in Welwyn Garden City, Preston, Leeds. Atherstone, Wishaw and Dublin with more than 950 employees and a turnover of more than £260 million.

The information, and, in particular, the recommendations relating to the application and end use of Sika® products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. Please refer to our homepage www.sika.co.uk for our current standard terms & conditions applicable to all orders. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request.







### **SIKA LIMITED**

**Head Office** Watchmead Welwyn Garden City Hertfordshire, AL7 1BQ United Kingdom

### SIKA IRELAND LIMITED

Sika House Ballymun Industrial Estate Dublin 11 D<sub>11</sub> DA<sub>2</sub>V Ireland

### Contact

+441707358500 +441707329129 E-Mail sika-trocal@uk.sika.com www.sikatrocal.co.uk

**●** @SikaTrocal

### Contact

Phone +353 1862 0709 +3531 862 0707 E-Mail info@ie.sika.com

www.sika.ie 



Merlin House Seven Mile Lane Borough Green Sevenoaks Kent TN15 8QY

Enquiries 0800 304 7616 International +44 (0) 1732 882387

Fax 0845 450 7486

Email

info@fixfast.com



