

SureFast® SF-RS-5.8 Fasteners

Carbon steel self-drilling fasteners for flat roofing, and fixing to thin steel and timber

Application

- For mechanically fixing single-ply and flat roofing systems to steel and timber decks in combination with appropriate SureFast® components.
- For mechanically fixing flat roofing accessories and trims to thin steel and timber materials
- For mechanically fixing timber battens and timber-like materials to thin steel

Key Features

- Optimised thread design for excellent pull-out performance and resistance to unwinding.
- Drillpoint designed for fast accurate penetration of metal decks up to 2 x 1mm
- Versatile design for metal and timber substrates
- Compatible with the SureFast® range of tube washers and pressure plates
- ETA Approval and CE Marked.
- Purpose designed and precision manufactured by Fixfast



Technical Data

Document reference

FF P SFRS5.8 004

01 FASTENER SYSTEMS
SureFast® Fasteners

SF-RS-5.8 fasteners

Specification	
Material	Steel SAE1022 case hardened
Coating	Multiple layer organic
Head Type	Low profile oval style, TX25 recess
Drilling Capacity	2 x 1.0mm S275 steels

Installation and handling	
Installation tool	Variable speed electric screwdriver
Installation drive	Fixfast TX25 drive bar range
Installation speed	1500rpm
Correct installation	Fasteners should be driven within three degrees of perpendicular to the surface of the fastened material. Avoid over-driving, and do not over-tighten.
Handling	Fasteners may have sharp edges, and the use of power tools can be dangerous. Use personal protective equipment. Store fasteners in dry conditions. Inspect each fastener before use and do not use damaged fasteners. Replace any fasteners which appear to have been installed incorrectly.

Installation details		
Substrates	Thickness limits	Minimum penetration
Thin steel	0.7mm – 2 x 1.0mm thickness	15mm through underside
Plywood / OSB decks	18mm minimum thickness	12mm through underside
Timber board decks	25mm minimum thickness	12mm through underside
Softwood	50mm minimum thickness	35mm embedment

Dimensions				
Fastener	Nominal length	Nominal Diameter	Nominal Drill Point Width	Nominal Head Diameter
SF-RS-5.8 x 40	40mm	5.8mm	3.1mm	9.1mm
SF-RS-5.8 x 55	55mm			
SF-RS-5.8 x 65	65mm			
SF-RS-5.8 x 69	69mm			
SF-RS-5.8 x 75	75mm			
SF-RS-5.8 x 85	85mm			
SF-RS-5.8 x 95	95mm			
SF-RS-5.8 x 105	105mm			
SF-RS-5.8 x 115	115mm			
SF-RS-5.8 x 125	125mm			
SF-RS-5.8 x 150	150mm			
SF-RS-5.8 x 175	175mm			
SF-RS-5.8 x 200	200mm			
SF-RS-5.8 x 250	250mm			
SF-RS-5.8 x 300	300mm			

Build-ups				
Fastener	0.7-1.2mm metal	18mm Plywood/ OSB	25mm timber boards	Softwood C16
SF-RS-5.8 x 40	0-24mm	0-10mm	0-3mm	0-5mm
SF-RS-5.8 x 55	12-39mm	12-25mm	12-18mm	12-20mm
SF-RS-5.8 x 65	12-49mm	12-35mm	12-28mm	12-30mm
SF-RS-5.8 x 69	12-53mm	12-39mm	12-32mm	12-34mm
SF-RS-5.8 x 75	12-59mm	12-45mm	12-38mm	12-40mm
SF-RS-5.8 x 85	11-69mm	11-55mm	11-48mm	11-50mm
SF-RS-5.8 x 95	21-79mm	21-65mm	21-58mm	21-60mm
SF-RS-5.8 x 105	30-87mm	30-73mm	30-66mm	30-68mm
SF-RS-5.8 x 115	41-99mm	41-85mm	41-78mm	41-80mm
SF-RS-5.8 x 125	51-109mm	51-95mm	51-88mm	51-90mm
SF-RS-5.8 x 150	51-134mm	51-120mm	51-113mm	51-115mm
SF-RS-5.8 x 175	76-159mm	76-145mm	76-138mm	76-140mm
SF-RS-5.8 x 200	101-184mm	101-170mm	101-163mm	101-165mm

SF-RS-5.8 fasteners

Build-ups				
SF-RS-5.8 x 250	151-234mm	151-220mm	151-213mm	151-215mm
SF-RS-5.8 x 300	201-284mm	201-270mm	201-263mm	201-265mm


Build-ups are shown without tube or plate. Figures should be reduced or increased by the differential in substrate thickness for other substrates and the penetration differences accounted for. Further calculations will be necessary when used with SureFast® tube washers or SureFast® pressure plates: approximately 25mm of fastener sits within a SureFast® tube, and build-ups are reduced by 3–4mm when used with flat plates. Consult the Fixfast SureFast® selector chart for full details, or for assistance selecting the correct fastener please contact Fixfast.

Performance	
Pull-out values (axial load resistance)	
Substrate	Characteristic value
0.7mm steel	1.43 kN
0.9mm steel	1.93 kN
1.2mm steel	2.87 kN
18mm plywood	2.10 kN
18mm OSB	1.58 kN
Softwood 38mm Embedment	4.06 kN

Steel galvanised S280 GD nominal, Plywood BS EN 1995-1-1 Eurocode 5, OSB BS EN 300 grade 3, Softwood C16

Independently tested to EAD 030351-00-0402

All values are tested and calculated according to Eurocode procedures.

Certification	
ETA	ETA-15/0406 of 2019-12-09
	

Usage conditions

The fasteners are for use with the substrates and materials shown in this datasheet within the limits stated. The fixing area must be solid with no perforations and must be chemically inert and dry.

The fasteners must be stored with due care and must not be allowed to suffer any corrosion or damage prior to installation.

Fixing patterns must be established on the basis of load calculations to Eurocode standards. It is the designer's responsibility to take into account all loading criteria and apply appropriate safety factors in accordance with performance data issued by Fixfast. The design of the building and application where the fastener is to be used must be to the minimum standard of mechanical performance laid down from time to time in the appropriate Codes of Practice or Building Regulations.

Where the fastener is in contact with materials which are not an inherent part of the system being fixed, these materials must be approved by the system manufacturer or relevant body for use with the system and must be chemically inert and dry. Such materials and their effects on the fasteners' performance are not the responsibility of Fixfast.

Fixfast products must be used as a complete system with tools and accessories as recommended, according to Fixfast's recommended procedures and according to good practice as detailed by the appropriate body for the type of work. They must be used only with other Fixfast products where such other products are available. They must not be cut, altered or modified.

The stated performance of the fastener will only apply while there is no damage or degradation to the materials and components it is associated with in the application, including damage resulting from incorrect installation, and as long as there is no change to the fasteners' immediate environment.

Performance data is applicable to use with new materials as detailed in a new-build application. Refurbishment or extensions/additions/abutments may be considered new-build if all materials used in conjunction with the fasteners are themselves new and unaffected and uncontaminated by any previous installation. Performance data for fasteners used in refurbishments and in contact with previously used materials must be agreed by Fixfast for each specific project and Fixfast given the opportunity to establish values by testing.

The fasteners are suitable for use in buildings for residential and commercial use governed by any regulations in force concerning the well-being of the occupants, where the immediate fastener environment is safe for human presence without any protection. They are suitable for use in buildings for industrial use where the same conditions apply and the materials used or stored are chemically inert. Use within atmospheres containing chlorides and substances known to affect stainless steel, such as around swimming pools, is specifically excluded.

The fasteners are suitable for use in buildings with humidity class of Class 1, Class 2, Class 3 to BS 5250 provided the other environmental conditions also apply. They are suitable for use in buildings with an internal temperature range of -45°C to 50°C. These environmental conditions must remain unaffected throughout the installed life of the fastener, and any change will invalidate the performance data for the fastener.