

# Technical Data Sheet

SureFast SF-RS-CL-5.2 Fasteners

# **Fastener Systems**



#### **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
- + Enhanced driveability fron No.2 Square Drive
- + Compatible with Sika Trocal S1 discs
- + ETA Approval and CE Marked
- + Purpose designed and precision manufactured by Fixfast



# **Specification**

Material	Steel SAE 1022 Case Hardened
Coating	Multiple layer organic
Head Type	Countersunk, No.2 Square recess
Drilling Capacity	Max 2 x 1.0mm S275 steel sheet

# Installation and handling

Installation Tool	Variable speed electric screwdriver
Installation Drive	Fixfast 2SQ 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 overdriving and do not overtighten.
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.

# **Dimensions**

Fastener	Nominal Length	Nominal Diameter	Nominal Drill Point Width	Norminal Head Diameter
SF-RS-CL-5.2 x 25	25mm			
SF-RS-CL-5.2 x 40	40mm			
SF-RS-CL-5.2 x 55	55mm			
SF-RS-CL-5.2 x 75	75mm			
SF-RS-CL-5.2 x 85	85mm			
SF-RS-CL-5.2 x 95	95mm			
SF-RS-CL-5.2 x 105	105mm	105mm 5.2mm		9.4mm
SF-RS-CL-5.2 x 115	115mm	J.211IIII	3.4mm	5.4111111
SF-RS-CL-5.2 x 125	125mm			
SF-RS-CL-5.2 x 150	150mm			
SF-RS-CL-5.2 x 175	175mm			
SF-RS-CL-5.2 x 200	200mm			
SF-RS-CL-5.2 x 250	250mm			
SF-RS-CL-5.2 x 300	300mm			

### **Installation details**

Substrates	Thickness limits	Minimum penetration
Thin Steel	0.7mm - 2 x 1.0mm	15mm through underside
Plywood / OSB decks	18mm minimum	12mm through underside
Softwood	25mm minimum	35mm (10mm through underside)

#### **Build-ups**

Fastener	0.7mm / 0.9mm	18mm plywood/OSB	Softwood (38mm embedment)
SF-RS-CL-5.2 x 25	0-10mm	n/a	n/a
SF-RS-CL-5.2 x 40	0-25mm	0-10mm	0-5mm
SF-RS-CL-5.2 x 55	20-40mm	15-25mm	15-20mm
SF-RS-CL-5.2 x 75	30-60mm	25-45mm	25-40mm
SF-RS-CL-5.2 x 85	40-70mm	35-55mm	25-50mm
SF-RS-CL-5.2 x 95	38-80mm	33-65mm	33-60mm
SF-RS-CL-5.2 x 105	46-90mm	40-75mm	40-70mm
SF-RS-CL-5.2 x 115	46-100mm	40-85mm	40-80mm
SF-RS-CL-5.2 x 125	56-110mm	50-95mm	50-90mm
SF-RS-CL-5.2 x 150	56-135mm	50-120mm	50-115mm
SF-RS-CL-5.2 x 175	81-160mm	75-145mm	75-140mm
SF-RS-CL-5.2 x 200	106-185mm	100-170mm	100-165mm
SF-RS-CL-5.2 x 250	156-235mm	150-220mm	150-215mm
SF-RS-CL-5.2 x 300	206-285mm	200-270mm	200-265mm

Build-ups are shown without plates. 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 pressure plates; and build-ups are reduced by 3–4mm.

Consult the Fixfast SureFast selector chart for full details, or for assistance selecting the correct fastener please contact Fixfast.

#### **Performance**

Substrates	Characteristic value
Steel 0.7mm	0.94 kN
Steel 0.9mm	1.47 kN
Steel 1.2mm	2.05 kN
OSB 18mm	1.52 kN
Timber (38mm embedment)	4.23 kN
Ply 18mm	2.01 kN

#### **Durability**

Years / Environment							
	Interior	Semi-interior	Rural	Urban	Industrial/Coastal	Marine	Swimming pools & Chemical plants
Corrosivity Category	C1	-	C2	C3	C4	C5	-
Multiple Layer Organic coated steel	25	20	12	n/a	n/a	n/a	n/a

Environment Conditions are defined in Fixfast's **Terms and Conditions of Warranty.**Atmospheric environments are now commonly categorised by reference to an international standard, of which the UK version is BS EN ISO 9223:2012.

Certification	
ETA	ETA_15-0406_Version_2017-01-13
	CE

#### **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.

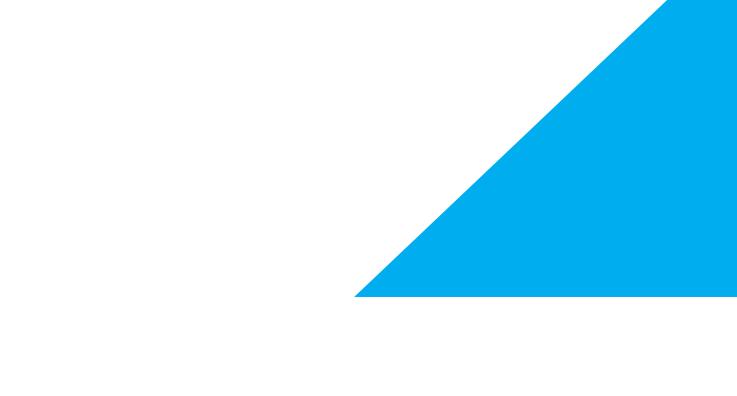
Fixfast products must be used as a complete system with tools and accessories as recommended, according to Fixfast's recommended procedures and according to good practice as detailed by the appropriate body for the type of work. They must be used only with other Fixfast products where such other products 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 or Class 4 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. They are suitable for use in Coastal locations (defined as any point between 2km and 10km of the sea). These environmental conditions must remain unaffected throughout the installed life of the fastener, and any change will invalidate the performance data for the fastener.



# **FIXFAST**

Merlin House Seven Mile Lane Borough Green Sevenoaks Kent TN15 8QY **Enquiries** 0845 450 7483

International +44 (0) 1732 882387

**Fax** 0845 450 7486

info@fixfast.com

