

## 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         |

| <b>Dimensions</b> |                       |                         |                                  |                              |
|-------------------|-----------------------|-------------------------|----------------------------------|------------------------------|
| <b>Fastener</b>   | <b>Nominal length</b> | <b>Nominal Diameter</b> | <b>Nominal Drill Point Width</b> | <b>Nominal Head Diameter</b> |
| SF-RS-5.8 x 25    | 25mm                  | 5.8mm                   | 3.1mm                            | 9.1mm                        |
| SF-RS-5.8 x 40    | 40mm                  |                         |                                  |                              |
| 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                 |                         |                                  |                              |

| <b>Build-ups</b> |                        |                          |                           |                     |
|------------------|------------------------|--------------------------|---------------------------|---------------------|
| <b>Fastener</b>  | <b>0.7-1.2mm metal</b> | <b>18mm Plywood/ OSB</b> | <b>25mm timber boards</b> | <b>Softwood C16</b> |
| SF-RS-5.8 x 25   | 0-9mm                  | N/A                      | N/A                       | N/A                 |
| 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 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.