

# SureFast® Stainless Steel SF-RS-SSA4-6.1 Fasteners



A4 (316 Grade) Stainless steel concrete fasteners for flat roofing.

## Application

For mechanically fixing single-ply and flat roofing systems to concrete and timber decks in combination with appropriate SureFast® components.

For mechanically fixing flat roofing accessories and trims to concrete

## Key Features

High resistance to corrosion - suitable for use in marine environments

Thread design developed to provide strong pull-out performance in accordance with EAD 030351-00-0402

TX 25 Drive for controlled installation

Compatible with the SureFast® range of tube washers and pressure plates

ETA Approval and CE Marked.

## Specification

<b>Material</b>	1.4401 stainless steel (316M), with carbon steel case hardened welded point
<b>Coating</b>	Multiple layer organic
<b>Head type</b>	Oval, TX25 recess
<b>Drilling capacity</b>	Up to 0.7mm S275 steel

## Certification

ETA ETA-15/0406 of 21.05.2025



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## Installation Details

Substrates	Dimension limits	Minimum penetration
Cast in-situ concrete	100mm minimum thickness 100mm minimum edge distance	25mm embedment
Pre-formed concrete components	40mm minimum thickness 70mm minimum edge distance	25mm embedment

Recommended pilot hole for concrete usually 5mm diameter.  
Pilot hole depth should be a minimum of 25mm greater than embedment depth to allow for sediment.  
For concrete deck applications a site pull-out test is recommended.

## Installation and Handling

<b>Installation tool</b>	Variable speed electric screwdriver
<b>Installation drive</b>	Fixfast TX25 drive bar range
<b>Installation speed</b>	1500rpm
<b>Correct installation</b>	Fasteners should be driven within three degrees of perpendicular to the surface of the fastened material. Avoid over-driving, and do not over-tighten.
<b>Handling</b>	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.

## Performance - Pull-out Values (Axial Load Resistance)

Substrate	Characteristic value
Concrete C25/30	3.19 kN
Concrete C25/40	2.61 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.

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## Dimensions

Fastener	Nominal Diameter	Nominal Head Diameter
SF-RS-6.1 x Length	6.1mm	9.1mm

## Build-ups

Fastener	Concrete
SF-RS-SSA4-6.1 x 50	0-20mm
SF-RS-SSA4-6.1 x 80	40-50mm
SF-RS-SSA4-6.1 x 120	80-90mm

Build-ups are shown without Tube Washers or Pressure Plates. When using our Tube Washers, details relating to build-ups and product selection can be found on our website see <https://www.fixfast.com/surefast-product-selector> or for further assistance please contact us.

## Durability Class - Years / Environment - Service life estimates based on material performance in defined environments

	Interior	Semi-interior	Rural	Urban	Industrial / Coastal	Marine	Swimming pools & Chemical plants
Code	C1	-	C2	C3	C4	C5	-
A4 stainless grade 316	40	40	40	40	30	25	n/a

Environment Conditions are defined in Fixfast's Terms and Conditions of Warranty.

Values tested to ETA and Eurocode procedures.

# Usage Conditions

## 1. Application

Fixfast fasteners are suitable for use only with the substrates, materials and system components specified in the relevant product datasheet and within the stated performance limits.

The fixing substrate must be solid, free from perforations and in sound condition. Materials in contact with the fastener must be chemically inert and suitable for the intended application.

Fasteners may be used with insulation materials such as PUR, PIR, EPS, XPS and mineral wool provided such materials are chemically inert, dry and compatible with the relevant roofing or building envelope system.

## 2. Installation

Fasteners must be stored in dry conditions and protected from corrosion, contamination or damage prior to installation.

Installation must be carried out in accordance with Fixfast installation instructions and recognised industry good practice by suitably trained and competent personnel. Fasteners must not be cut, altered or otherwise modified.

## 3. Design Responsibility

Fastener selection and fixing patterns must be determined by the project designer based on structural load calculations in accordance with the relevant Eurocode standards, Building Regulations and recognised Codes of Practice.

Compatibility of materials forming part of the building envelope system remains the responsibility of the system designer or specifier.

## 4. Environmental Conditions

Fasteners are suitable for use in residential, commercial and industrial buildings where surrounding materials are chemically inert and the environment is not subject to conditions that would adversely affect the performance of the fastener material.

Classification of environmental conditions, including internal humidity classification in accordance with BS 5250, temperature range and external atmospheric corrosivity in accordance with ISO 9223, shall be determined by the project designer or specifier.

The selection and suitability of fastener materials in relation to environmental exposure, including the effects of localised conditions or microclimates and the intended design life of the construction, remain the responsibility of the project designer or specifier.

Environments containing chlorides or other aggressive substances, including but not limited to swimming pool buildings and roof voids or enclosed spaces above such areas where chlorinated vapours may accumulate, may present a risk of accelerated corrosion or stress corrosion cracking.

Such environments shall be subject to specific assessment by the project designer, and only products explicitly designated by the manufacturer as suitable for these conditions shall be used.

## Guidance for Specifiers – Typical Material Selection

The table below provides general guidance only and does not replace project-specific assessment.

Fastener Material	External Environment	Internal Environment
Carbon Steel (coated)	C1 - C2	HC1 - HC3
A2 Stainless Steel (1.4301 / 304)	C1 - C3	HC1 - HC4
A4 Stainless Steel (1.4401 / 316)	C1 - C4	HC1 - HC4
HCR Stainless Steel (1.4529 / equivalent)	C1 - C5	HC1 - HC5

## 5. Performance Data

Performance data published by Fixfast is derived from laboratory testing conducted under controlled conditions. Actual in-service performance may vary depending on substrate characteristics, installation practice and environmental exposure.

Fixfast fasteners provide mechanical attachment only. The performance, suitability and durability of the complete building envelope system remain the responsibility of the system designer and installer.