

SFS



isoweld®

Increases efficiency, ensures security, saves on cost.

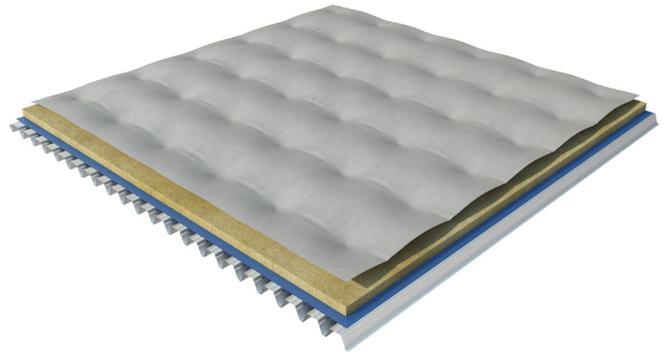
isoweld®

Field fixing system

Flat roofs often have to withstand high wind loads and thereby secure attachment of the thermal insulation and single ply membrane to the substrate, is of the highest importance. Mechanical fixing of single ply membrane is essential where the location is highly exposed and particularly at corner and perimeter zones, where additional restraint is required.

The isoweld® fastening system uses induction technology to weld single ply membrane to dedicated stress plates, securing it to the roof deck. The innovative system increases efficiency, ensures security, and saves on cost.

isoweld® stress plates are installed in a project specific grid pattern through the insulation and AVCL layers and into the substrate. The membrane is rolled out and secured to the stress plates using the isoweld® 3000 machine. Welding time is just 3 seconds per plate, maximising productivity. The installed membrane fasteners are independent of the membrane seams and their field fix positioning provides for an even distribution across the roof area. This process takes place without fastener penetration of the membrane and requires significantly fewer thermal insulation fixings in comparison with seam fix applications.



Product advantages at a glance

- No penetration of the roofing membrane
- Fastening independent of the membrane seam
 - Choice of membrane laying direction
 - Reduced membrane overlaps at seams – increased coverage
- Up to 50% fewer fasteners are required
- One membrane width is required for the complete roof
 - Less membrane welding
- No membrane cover strip requirement
- Fast to install – welding in seconds

Trust in our competence

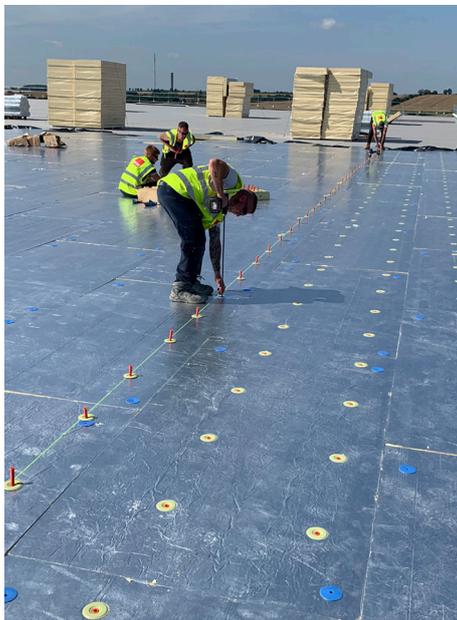
SFS is a specialist fastener manufacturer with extensive experience in flat roof construction. Our focus is on the provision of innovative, high-performance, fastening products. The isoweld® system is no exception and has been used to successfully install more than 20 million square meters of single ply membrane on flat roofs. The isoweld® system and products are FM approved (Approval Identification: 3052878) and the products are also assessed and covered by European Technical Assessment ETA 08/0262.



Testimonials

"SFS' Isoweld system has many benefits but the biggest for me is the potential to significantly reduce the number of fasteners required. SFS have put lots of time and thought into Isoweld system and the tooling. Combined with SFS' high levels of support and their excellent products it makes for a very safe option."

Dean Grady – Sika Ltd



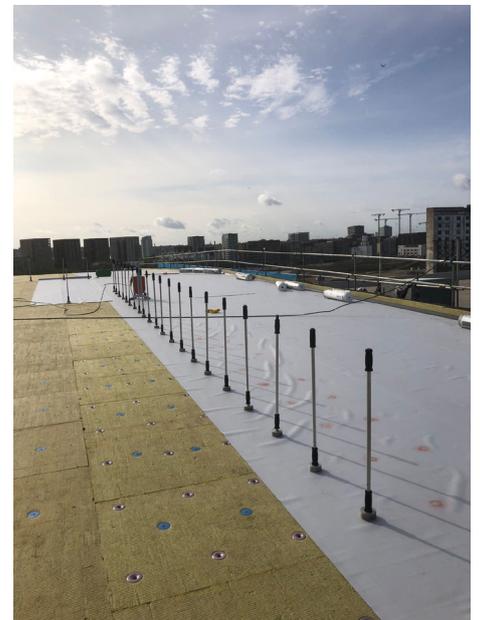
"We recently used SFS Isoweld on a large project in Rugby which comprised of an overlay of an existing single ply roof with a separation fleece and a new layer of PVC single ply. SFS recommended the Isoweld system and I'm glad they did, the system offered us a saving of 40,000 fixings on the project due to not having to lap fix the membrane. Operatives found the system pain free to adapt to and it also reduced the amount of labour time on the project. As a company the system will be used again as soon as the right project pops up."

Duncan Murdock – NRA Roofing & Flooring Ltd



"We have used the Isoweld system on large Bauder projects and have found the ease and speed it brings to the installation of our waterproofing makes it an ideal method of fastening"

Chris Lee - Bauder Limited



Project Specification, Technical Support & Project Site Services

SFS offers support in every phase of a construction project with the highest level of application expertise and commitment. Project support ranges from the provision of specification assistance, including the training of site operatives and site presence when required.

Overview of services and support

Specification assistance

A dedicated specification team is available to discuss and assist with project requirements in your office or online.

Wind load calculations

SFS offers wind load calculations to BS EN 1991-1-4/NA:2011 and also wind load calculations in accordance with FM requirements. This includes fastener placement requirements, suggested fastening schemes and take-offs for uniform and tapered insulation schemes.

Tool hire service

SFS have an extensive fleet of isoweld® rental tools available. Please ask for details.

Training

Site operative training can be provided at customer premises or in the SFS Academy. Site training is also provided by SFS Site Technicians.

Pull-out service

For all refurbishment projects or new build projects with concrete decks, SFS can undertake site pull-out testing to confirm that the fastener pull-out design load assumed in the wind load calculations can be achieved.



Adjustable fastening solutions for tapered insulation

In addition to applications with uniform insulation layers, SFS can also offer innovative isoweld® solutions for projects with tapered insulation schemes.

BSA – for use on profiled steel decks

Security

The telescopic design allows the fastener free movement within the sleeve when increased loading, such as foot traffic, is applied. When the load is removed, the fastener returns to the original position inside the sleeve.

Adjustability & simplicity

The adjustment in fastener length of up to 85 mm reduces the number of required fastener combinations, simplifies the fastening scheme and provides for easier procurement.

Installer friendly

Fast and easy to install

System flexibility

Using the appropriate washer options, the BSA fastening system is suitable for seam fixing as well as field fixing membrane installation applications.

Isoweld stress plate

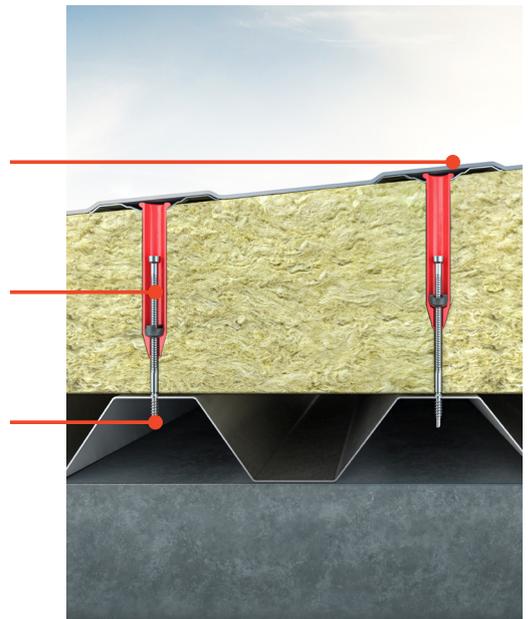
Options for PVC, TPO and EPDM membranes

Adjustable fastener

The BSA-500 setting tool is used to adjust the fastener setting height

20 mm setting depth

Due to the innovative fastener design, a maximum setting depth of 20 mm is achieved with every fastener application



TIA – for use on poured and precast concrete decks

Installer friendly

Fast and easy to install

Setting depth

Less drilling due to the embedment requirement of just 20 mm.

Adjustability & simplicity

The adjustment in fastener length of up to 100 mm reduces the number of required fastener combinations, simplifies the fastening scheme and provides for easier procurement.

FI-R-20 sleeves

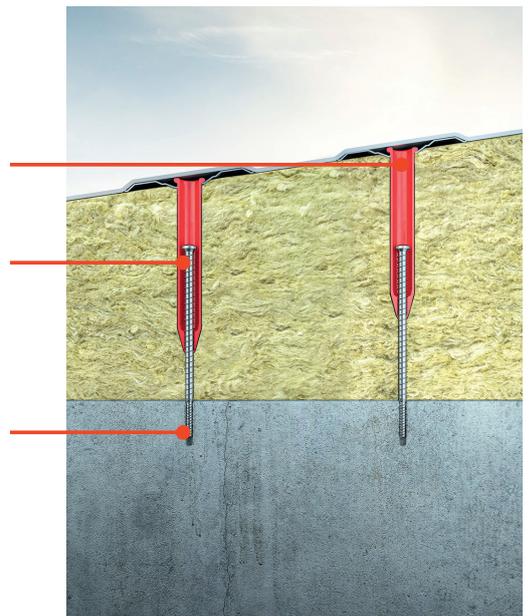
Temperature-resistant polyamide sleeves

TIA fastener

An optimised concrete thread with a courser upper thread for height adjustment within the sleeve.

20 mm setting depth

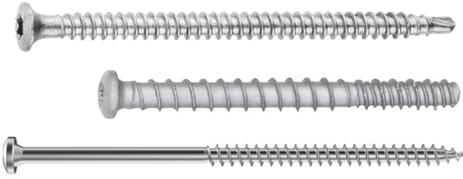
The concrete thread limits setting depth to 20 mm



Welding machine and isoweld® tooling

<p>isoweld® 3000 For ergonomic working</p>	<p>Hand inductor (accessory) For working in confined spaces and on parapet walls</p>	<p>Magnet set Functions: contact pressure and cooling. With removable handle extensions</p>
		

Overview of system components

Product	Description	
<p>FI-P-16,0 FI-P-6,8</p>	<p>FI-P-6,8 for all-metal fixing applications FI-P-16,0 for use with FI-R-20 sleeves PVC, TPO, and EPDM versions available</p>	
<p>FI-R-20 Sleeves</p>	<p>Temperature-resistant FI-R-20 polyamide Fasteners can be pre-assembled onsite Holding function for FI-P-16,0 stress plates Optimised tip for easier installation</p>	
<p>Fasteners</p>	<p>Large range of fasteners Fasteners available for all substrates</p>	
<p>FI-Pad</p>	<p>Cardboard pad for use on polystyrene insulation, EPS, XPS or above fleece layers Placement under the Sarnaweld stress plates Perforated for use with all-metal or sleeve applications</p>	
<p>Tooling</p>	<p>For ergonomic positioning of the fasteners Drive bar extension for screw bits T25-32-M6 screw bits ZH-12 Ring with holding function</p>	

For more detail, please see the appropriate Product Data Sheet or the Flat Roofing UK Tooling & Accessories Brochure.



Find out more!



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All information is non-binding and without guarantee. Before using the products, all specifications and calculations must be checked by a suitably qualified person and local regulations must be observed. This document is subject to revision. We reserve the right to make technical changes.
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