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World Reference
in Waterproofing



Sureplan FPO Reinforced Membrane

Single Layer Roof Waterproofing Systems



Introduction

Sureplan FPO is a heat-weldable single-ply membrane designed for new roof construction and re-roofing applications. Sureplan FPO flexible thermoplastic polyolefin (FPO) membrane is based on advanced polymerisation technology combining the durability and wearing properties associated with POCB membranes with the excellent heat welding characteristics of PVC. The membrane is specifically formulated for long-term weather resistance without the use of either polymeric or liquid plasticisers.

Standard

Sureplan FPO has been independently site and laboratory tested by the British Board of Agrément and awarded BBA certificate number 12/4962.



Description

Sureplan FPO is manufactured by laminating a reinforced glass fibre fabric between two FPO layers which enhances the physical properties of the membrane. The combination of the reinforcement and FPO plies provide Sureplan FPO membranes with excellent physical performance characteristics. The relatively smooth surface of Sureplan FPO produces a total surface fusion weld that creates a consistent, watertight monolithic roof assembly. An enhanced Sureplan FPO Plus version is also available.

Intended Use

Sureplan FPO is intended for use as an exposed membrane in mechanically fastened systems. It may also be used with Sureplan FPO Fleeceback membrane as the detailing sheet.

Properties

Roll Size	1.5 m x15 m
Roll Weight	39 kg;
Membrane Thickness	1.5 mm
Colour Availability	Light Grey (RAL 7001) Anthracite (RAL 7015)

Compatibility

Sureplan FPO roof membranes may be installed on all major roof deck types such as plywood, timber boards, profiled metal, concrete and cementitious screeds and is not affected by direct contact with commonly used roofing materials such as bitumen, asphalt, mortar, polystyrene or rubber. This makes Sureplan FPO an ideal membrane for overlaying existing roofs.

Biological

Sureplan FPO will not rot or support plant growth and is resistant to bacteria found in normal atmospheric pollution, animal fats, grease, hydrochloric acid and calcium chloride (salt).

Durability

Sureplan FPO is resistant to weathering, chemical oxidation and UV degradation. Sureplan FPO membranes have a life expectancy in excess of 20 years, demonstrating superior durability and system service life performance.



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Fire Performance

Sureplan FPO has been tested to BS 476-3 (national class) and achieved an EXT.F.AC rating. A version with enhanced fire properties is available. The Sureplan FPO Plus membrane was tested to BS 476-3 (national class) and achieved an EXT.F.AB rating.

Installation Details

Adjoining sheets of Sureplan FPO are fused together by hot air welding which is generally considered to be the strongest and safest method available in the industry today.

Typically for the main area of the roof, an automatic welding machine is used providing clean and consistent welds whilst providing maximum control over both temperature and speed. Sureplan FPO exhibits a wide "welding window" allowing perfect welds to be produced over a broad temperature range. On completion, the integrity of each weld is checked manually with a seam probe or an electronic integrity test may be carried out.

Surface Preparation

Airborne dust and debris blown into the lap areas can contaminate the weld. Windy conditions may dictate stopping work until conditions improve. Contaminated laps should be cleaned. Membranes exposed for 7 days or longer should be cleaned with Icopal FPO Membrane Cleaner prior to hot air welding.

Membrane Application

Prior to and during membrane installation, inspect and correct the substrate; i.e. voids or gaps between insulation boards, uneven or step-off conditions, insulation plates that will fall under the laps and any other surface irregularities that can cause voids in the weld. Position sheets to allow for minimum 50mm side and end laps, in the case of the mechanically fastened system, the side lap should extend a minimum 50mm past the fastening plates.

The membrane should be attached using appropriate Icopal Screw Fasteners and Icopal Tubular Washers or Pressure Plates, and positioned in the overlap between adjoining sheets.

Refer to Icopal Technical Services Department for further information.

Exercise caution when walking on wet membrane as they are slippery when wet.

NOTE: This information is given in good faith being based on the latest knowledge known to Icopal Limited. Whilst every effort has been made to ensure the contents of the publication are current while going to press, customers are advised that products, techniques and Codes of Practice are under constant review and liable to change without notice. Up to date information is available from our Technical Services Department on request.

Responsibility cannot be accepted for the application of products, and no claims can be considered, where the manufacturer's instructions have not been followed. The user should not assume, based on information provided in this sheet, that the product is suitable for any abnormal use.

All products are sold subject to our standard conditions of sale, available on request.

NBS Specification

Sureplan FPO is specified using the following:

Clause: J42/110, J42/120, J42/130

Product: Sureplan FPO Reinforced Membrane

Manufacturer: Icopal Ltd. Barton Dock Road, Stretford, Manchester, M32 0YL. Tel: 0161 865 4444.



Quality Assurance

Sureplan FPO membranes are supplied under a Quality Management System approved to *ISO 9001: 2000* by BSI Quality Assurance.



QMS: Q5556

Delivery and Storage

The membranes are delivered to site in rolls packed on pallets. Store and protect materials from mechanical damage and shelter from rain and sun. Cover with a light-coloured, breathable tarpaulin. Exercise caution and do not exceed the allowable live load of the structure. Keep the materials in unopened packaging prior to use, reseal any damaged packing.

Technical Services

Specialist advice and design guidance on all matters relating to Sureplan FPO systems is freely available from our Technical Department at the address below.

Availability

Item Code	Description	Colour
3100358	Sureplan FPO	Light Grey
3100364	Sureplan FPO	Anthracite
3100359	Sureplan FPO Plus	Light Grey
3100370	Sureplan FPO Plus	Anthracite