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Icopal Universal® WS

Single Layer Roof Waterproofing Systems



Introduction

Every specifier wants to specify a reliable, long lasting roof - with Icopal Universal® you can satisfy both these requirements, and more. Ideal for flat or pitched roofs, Icopal Universal delivers strength, flexibility and durability, and - after a lifetime of up to 30 years - it can also be recycled, greatly improving a building's sustainability.

Standard

Icopal Universal® membranes have been independently site and laboratory tested by the British Board of Agrément, and awarded BBA certificate number 17/5437.



Description

Icopal Universal® WS consists of a complex polyester and glass fibre reinforcement coated with a POCEB (polyolefin copolymerisable binder) bitumen compound with root retardant additives meeting FLL standards. Both the upper and lower surfaces are finished with a polypropylene fleece to prevent the product from sticking in the roll. The upper surface is printed with a continuous blue selvedge line.

The result is a strong, flexible, and extremely stable single layer roof covering that is UV resistant and tough. Icopal Universal® WS is 3.2 mm thick and is fully recyclable and together with the product's low mass, long life cycle, and manufacture from clean raw materials, it demonstrates a highly favourable Life Cycle Assessment, and meets the strictest standards for sustainable construction.

Properties

	Value
Roll Size	10.0 m x 1.0 m
Roll Weight	35 kg
Membrane Thickness	3.2 mm
Membrane Colour	Black

Durability

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

Compatibility

Icopal Universal® WS is compatible with most building materials with which it is likely to come in to contact with during roofing works.

Hydrocarbon solvent based products, such as Naphtha, paraffin and creosote will have a harmful effect and should not be allowed to come in to contact with these membranes.

Timber used in the construction of the roof deck must not be treated with solvent based preservatives.

Intended Use

Icopal Universal® WS is root retardant for use as a roof waterproofing membrane beneath green roof systems and is suitable for adhered, mechanically fastened or ballasted roof applications.



EN 13707 06 0620-CPR-74170

Ref: ICO2196



Surface Preparation

All surfaces must be clean, free from dust, oil, grease and any other contaminants that be detrimental to the performance of the membrane. All sharp projections must be removed, and any fixings well driven to avoid damage to the waterproofing membrane.

Membrane Application

Adjoining sheets of Icopal Universal® are fused together by hot air welding. Position sheets to allow for minimum 130 mm side laps using the pre-printed guide line. In the case of the mechanically fastened systems, the side lap should extend a minimum 80 mm past the fastening plates. End laps should be 150 mm, and staggered. A continuous 5 mm bead of bitumen should extrude at all laps as work proceeds.

Mechanically fastened systems rely on the use of screw fasteners and washers installed at pre-determined centres within the overlap to attach the roofing system to the structural deck.

The fasteners are required to penetrate the structural deck to a minimum distance which is dependent upon substrate type. Fixing centres are determined following completion of a wind uplift calculation, carried out during the initial design stage.

In adhered applications, position sheets as above then fold or roll the membrane back halfway. Apply the membrane adhesive in accordance with current instructions, ensuring no adhesive is applied to the area to be hot-air welded, and place the membrane into the wet membrane adhesive.

In ballasted situations, the membrane is loose-laid with laps sealed as described above. A ballast, using paving slabs on support pads, a layer of round pebble, or green roof system, is installed over the membrane in an advancing manner as work progresses, to restrain the system against wind uplift forces.

For full application details refer to *Icopal Universal® User Guide and Installation Booklet*.

Position laps so that water runs across or parallel to the laps where possible.

Refer to Icopal Technical Services Department for further information.

Quality Assurance

Icopal Universal® WS is supplied under a Quality Management System approved to *ISO 9001:2008* by BSI Quality Assurance.



QMS: Q5556

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

Icopal Universal® WS is specified using the following:

Clause: J41/110, J41/120, J41/130

Underlay: Icopal Universal WS.

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



Delivery and Storage

The rolls are delivered on pallets covered with a shrink wrap bag. The product must be transported and stored on end. If rolls are removed from the original pallet store on end, upright on a firm flat surface dry and out of direct exposure to the elements. Protect from mechanical damage and heat sources.

Do not store with rolls laid flat.

If original packaging is removed, cover must be provided if product is to be stored outside. Storage temperatures must be between 0 °C and 40 °C. Stacking up to two pallets high is only permitted if the lower pallet rolls are reeled on a cardboard core. Plywood spacer boards must be placed between pallets.

Do not store where membranes are liable to come in to contact with hydrocarbon solvents, such as petroleum spirit or diesel oil or other organic solvents.

Icopal is not responsible for damage when the above instructions are not followed.

Health and Safety

Health and safety data sheets are available for all materials. Please contact Icopal's Technical Services Department for further information.

Technical Services

Specialist advice and design guidance on all matters relating to Icopal Universal® is freely available from our Technical Department at the address below.

Availability

Item Code	Description	Roll Length
3007146	Icopal Universal WS	10 m x 1 m