



Enviroflex™

Liquid-Applied Roof Waterproofing

**The User Friendly
Liquid-Applied
Roof Waterproofing
Solution**



The **User Friendly** Liquid Roof Waterproofing System



Enviroflex™ liquid waterproofing membrane is the latest innovation in liquid roofing technology combining the benefits associated with existing alternative products to create a new system which is very user friendly.

Customers currently using liquid applied waterproofing systems will be familiar with the challenges often associated with this type of product. Unpleasant odours, restrictive weather conditions, differing application processes, multi component systems – combined, these make the successful installation of liquid systems very challenging. Enviroflex™ has been developed with these attributes in mind to produce a membrane which is considerate to the needs of the installer.

Enviroflex™ is a liquid waterproofing system that eliminates many of the challenges faced, to provide a product which is very practical to use and ticks all the boxes.

User Friendly Benefits:

- Completely Solvent Free
- Resealable lids
- Very low/no odour
- Fast curing
- "Wet-on-wet" application
- Usable at low temperature

Versatile

Enviroflex™ is an extremely versatile product which can be used for flat roof applications of all shapes and sizes, ranging from small domestic to large commercial projects.

Installed directly to new timber or over existing waterproofing systems, Enviroflex™ cures to form a completely seamless, durable and flexible surface that can tolerate minor building movement and foot traffic.

System Components

The Enviroflex™ System comprises of a very simple product range involving:

- Primers
- Liquid Applied Waterproofing
- Reinforcing Fabric
- Walkway Accessories

No accelerants or catalysts are required to aid the curing process – the Enviroflex is applied directly from the tin.

Furthermore, opened tins of Enviroflex or primer can be resealed allowing unused material to be utilised at a later date – Enviroflex™ is the ideal product to have in the van should a problem leak require an emergency repair!



Fast Curing

The Enviroflex™ Liquid Applied Waterproofing (L.A.W.) and primers benefit from a fast curing process which allows completed areas to be trafficked within the same day. Dependant upon climatic conditions, the Enviroflex™ membrane can receive foot traffic in approximately 4 hours and is weatherproof in 30 minutes.

Assurance

Many thousands of square metres of the Enviroflex™ System have been successfully installed in Europe and the United States of America. Continuous research and development over several years has led to the generation of today's membrane.

Extensive testing and product trials have given Icopal the confidence to offer customers an Enviroflex™ product guarantee for up to 25 years (subject to specification).

Risk Avoidance

A common benefit of using a liquid waterproofing system is the elimination of hot works which can substantially reduce the contractor's insurance costs. As a further benefit, Enviroflex™ is manufactured completely solvent free and does not contain any volatile organic compounds. The result of this innovation impacts directly on the user as there is no risk associated with unpleasant odours that can make installation uncomfortable for the installer and the client.

As standard, Enviroflex™ is manufactured with grey finish which, when fully cured, has a matt appearance. Where necessary, an anti-skid walkway finish incorporating coloured quartz sand is available.

Low Temperatures

Enviroflex™ is able to cure at temperatures as low as 0 °C as long as the surface is not actually freezing.

Vapour Permeability

Enviroflex has a water vapour diffusion resistance factor of 825μ which is one of the lowest in the roofing industry. As a result, Enviroflex can be applied to roofs that have experienced historic water ingress.

Third Party Approval

Enviroflex membranes have been independently assessed by the British Board of Agrément (BBA) and the Centre Scientifique et Technique de Batiment as part of an ETA assessment.

Industry Association



Icopal is a member of the Liquid Roofing and Waterproofing Association [LRWA].

As an association, LRWA's guiding principle is to ensure that clients obtain high quality liquid-applied roofing, through a partnership of quality assured manufacturers and contractors.





System Components and Accessories

The Enviroflex™ Liquid Applied Waterproofing is a single component liquid product incorporating moisture triggered curing technology. Applied in multiple layers in conjunction with a polyester reinforcing fleece, the membrane is vapour permeable, and suitable for use on both new and refurbishment projects.

System Components

The membrane system comprises of a very simple product range involving:

Primers:

Enviroflex™ Primers, where required, improve adhesion of the waterproofing system to the substrate. It is important that the substrate is suitably prepared prior to application of the Enviroflex™ System.

Liquid Applied Waterproofing:

Enviroflex™ L.A.W. is a single component, fast curing liquid waterproof coating, which is applied in a “wet-on-wet” application. Since the Enviroflex™ liquid waterproofing is applied in one operation, it allows the installation to be completed quicker and more reliably than other methods. Enviroflex™ L.A.W. is available in grey as standard.

Reinforcing Fabric:

The Sealoflex® Reinforcing Fabrics regulate membrane thickness and provide the systems with their strength and robustness.

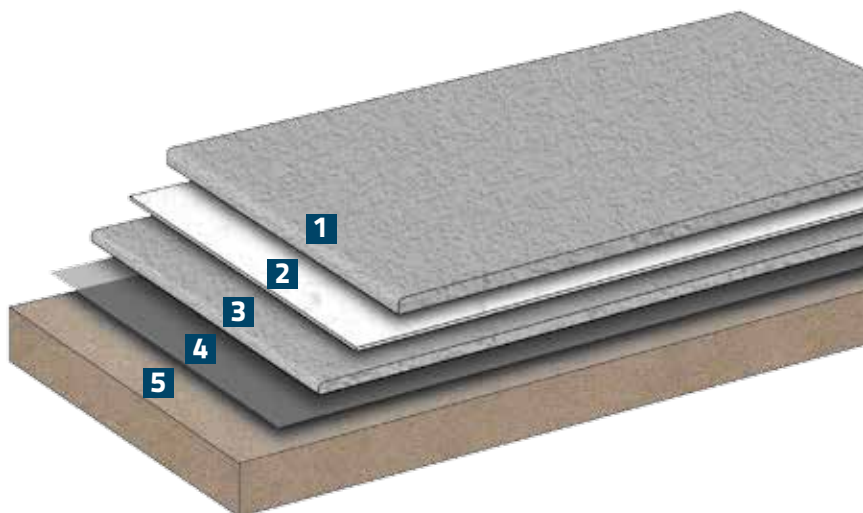
Anti-Skid Walkway:

Enviroflex™ Walkway System provides a durable hard wearing anti-skid surface, which protects the waterproofing from access foot traffic. Enviroflex™ L.A.W. is applied as a base resin layer and Enviroflex™ Quartz is broadcast into the coating to provide the anti-skid surfacing. The system is then overcoated with Enviroflex™ Wearcoat Clear to provide a final encapsulation and UV protection layer above the embedded quartz.



Enviroflex™ 15

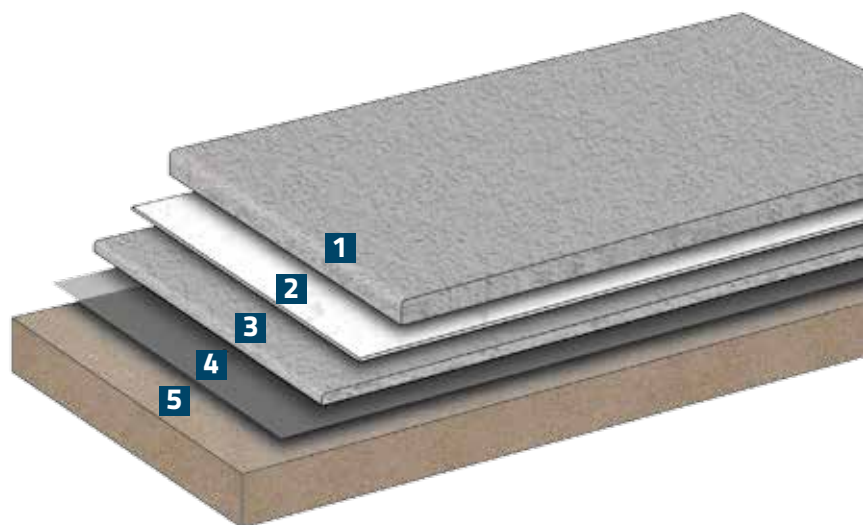
- 1** Enviroflex™ L.A.W. (Top Layer) @ 0.6 l/m²
- 2** Sealoflex® Reinforcing Fabric
- 3** Enviroflex™ L.A.W. (Embedment Layer) @ 0.6 l/m²
- 4** Enviroflex™ Primer
- 5** Substrate



- 15 year insured product guarantee
- Coverage rate: 1.2 l/m²
- BBA Certified (15/5229)
- Fully reinforced with a polyester fabric (110 g/m²)
- Anti-skid surface finish available
- Suitable substrates: Existing Bitumen, Asphalt, PVC Single Ply, Plywood/OSB

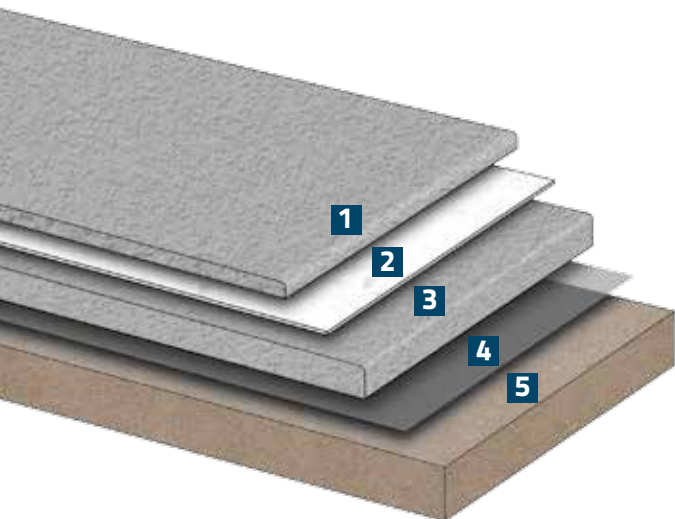
Enviroflex™ 20

- 1** Enviroflex™ L.A.W. (Top Layer) @ 0.9 l/m² *
- 2** Sealoflex® Reinforcing Fabric
- 3** Enviroflex™ L.A.W. (Embedment Layer) @ 0.6 l/m²
- 4** Enviroflex™ Primer
- 5** Substrate



- 20 year insured product guarantee
- Coverage rate: 1.5 l/m²
- Fully reinforced with a polyester fabric (110 g/m²)
- Additional layer applied to cured membrane
- Anti-skid surface finish available
- Suitable substrates: Existing Bitumen, Asphalt, PVC Single Ply, Plywood/OSB

* A top layer coverage of 0.9l/m² is required to meet the 20 year guarantee criteria. It is possible to achieve this coverage with a single layer by careful measurement and distribution of the Enviroflex LAW. It is also possible to apply the standard 0.6l/m² as the 15 year system and then to apply a further coat of 0.3l/m² after curing. This may provide a more even distribution of the Liquid and better control of overall thickness.



Enviroflex™ 25

- 1** Enviroflex™ L.A.W. (Top Layer) @ 0.7 l/m²
- 2** Sealoflex® Premium Reinforcing Fabric
- 3** Enviroflex™ L.A.W. (Embedment Layer) @ 1.3 l/m²
- 4** Enviroflex™ Primer
- 5** Substrate

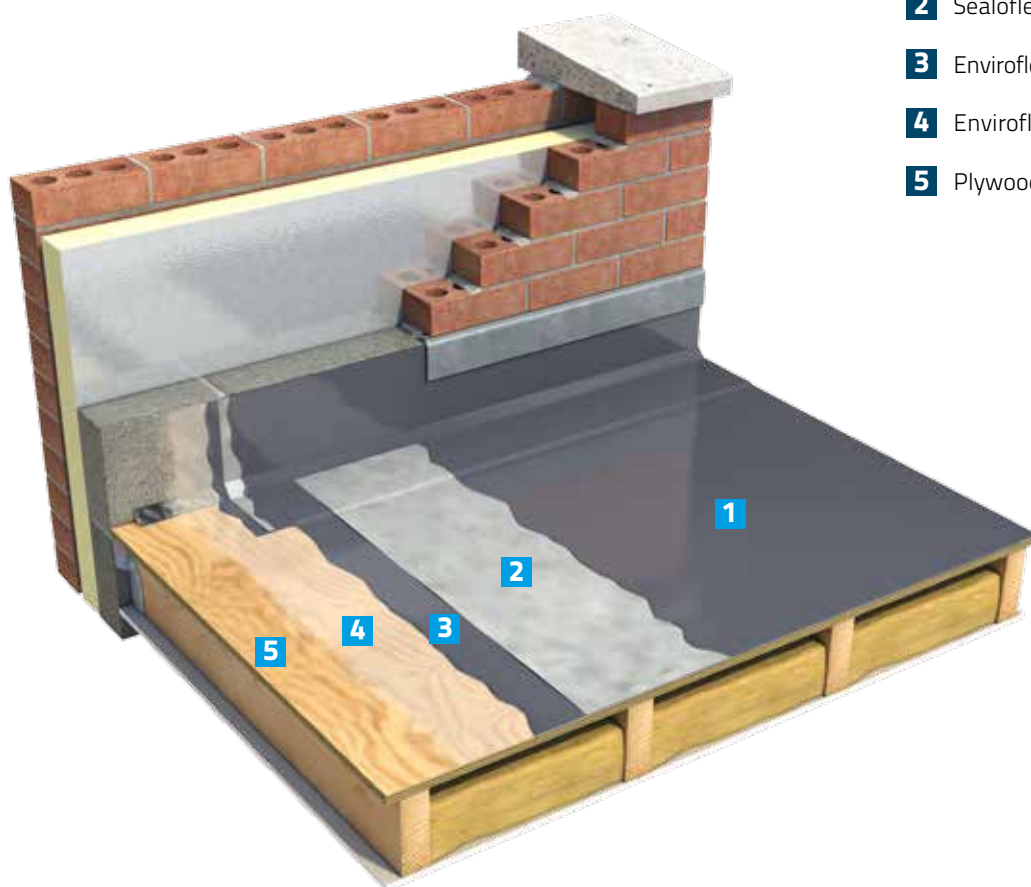
- 25 year insured product guarantee
- Coverage rate: 2.0 l/m²
- BBA & ETA Certified
- Fully reinforced with a polyester fabric (165g/m²)
- Fully trained installers only
- Suitable substrates: Existing Bitumen, Asphalt, PVC Single Ply, Plywood/OSB

Product table

Product Code	Product Name	Description	Size	Coverage rate*	Area (m²)
	Primers				
2004412	Enviroflex EP1 Primer (4L)	Primer for PVC, plywood/OSB, metal and masonry	4L	0.1 - 0.2L/m²	20 - 40
3101023	Enviroflex EP1 Primer (20L)	Primer for PVC, plywood/OSB, metal and masonry	20L	0.1 - 0.2L/m²	100 - 200
3101024	Enviroflex Acrylic Primer (20L)	Primer for bitumen & asphalt	20L	0.3L/m²	66
3101025	Enviroflex Acrylic Primer (4L)	Primer for bitumen & asphalt	4L	0.3L/m²	13
	Waterproof L.A.W.				
2004411	Enviroflex L.A.W. (Grey 15L)	Grey liquid applied waterproof coating	15L	Subject to system	
2004410	Enviroflex L.A.W. (Grey 4L)	Grey liquid applied waterproof coating	4L	Subject to system	
	Reinforcements				
3101031	Sealoflex Reinforcing Fabric (1000mm)	Polyester reinforcement for Enviroflex 15 & 20 System	30 x 1m		30
3101032	Sealoflex Reinforcing Fabric (300mm)	Polyester reinforcement for Enviroflex 15 & 20 System	91.4 x 0.3m		27,4
3101579	Sealoflex Board Joint Fabric (100mm)	Used to tape board joints on new timber	100 x 0.1m		100 lin m
3101765	Sealoflex Premium Reinforcing Fabric (1000mm)	Polyester reinforcement for Enviroflex 25 System	50 x 1m		50
3101764	Sealoflex Premium Reinforcing Fabric (300mm)	Polyester reinforcement for Enviroflex 25 System	50 x 0.3m		15
	Anti-Skid Walkway				
	Enviroflex L.A.W.	Base coat to receive quartz granules	4L or 15L	0.2L/m²	
3101037	Enviroflex Standard Quartz (Grey) 25kg	0.4 - 0.8mm coloured quartz granules	25kg	2.5 - 4.0kg/m²	10 to 6
3101035	Enviroflex Wearcoat Clear (20L)	Clear liquid UV protection coating	20L	2 x 0.25 L/m²	40
3101036	Enviroflex Wearcoat Clear (3.8L)	Clear liquid UV protection coating	3.8L	2 x 0.25 L/m²	7.6
	Metal Surface Treatments				
3101718	Sealoflex Rust-X 2020	Surface treatment for corroded metal	3.78L	0.1L/m²	38
3101717	Sealoflex Metal Etch Primer	Metal primer above Rust-X	3.78L	0.2L/m²	19

* Coverage rate is a guideline only. Coverage can vary dependent upon substrate and environmental conditions

New Construction



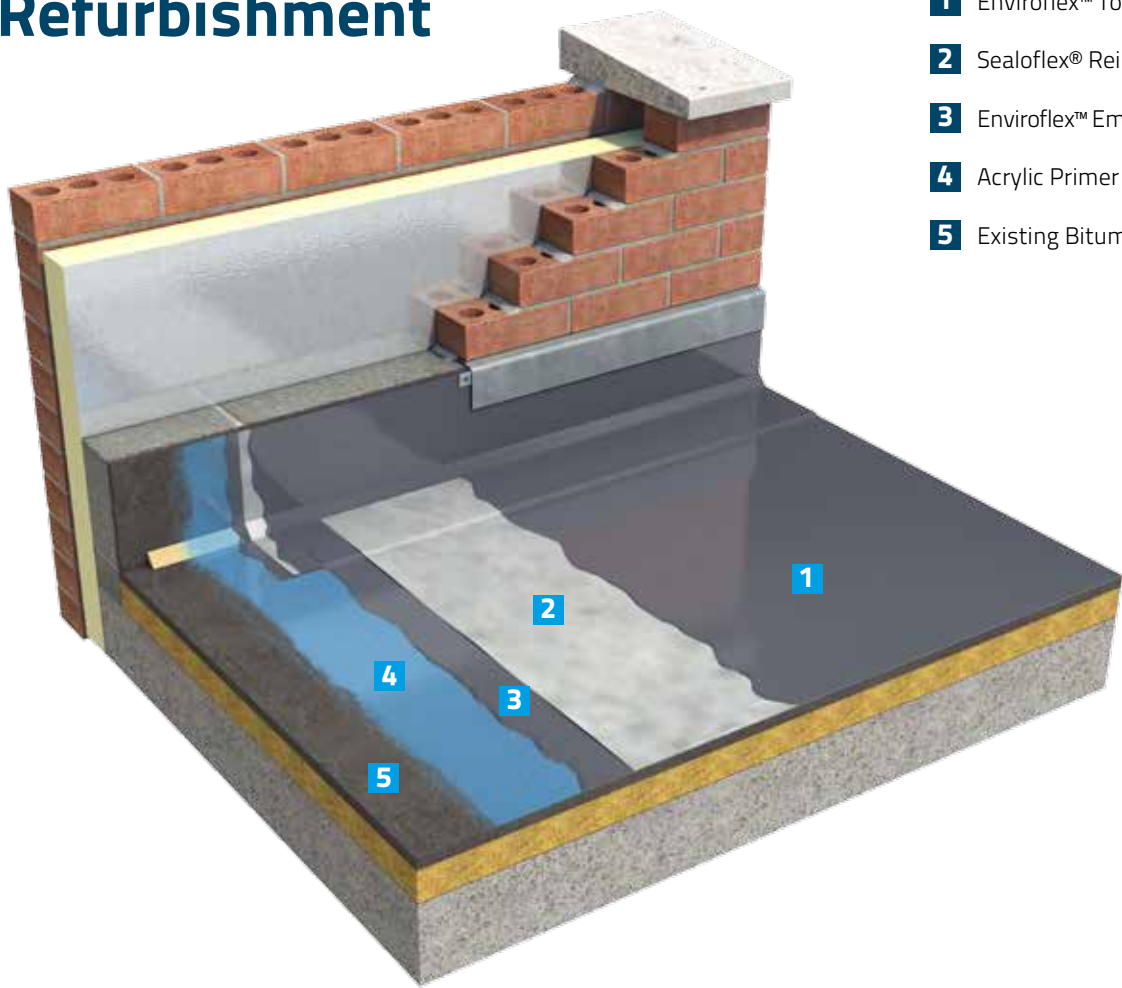
- 1** Enviroflex™ Top Layer
- 2** Sealoflex® Reinforcing Fabric
- 3** Enviroflex™ Embedment Layer
- 4** Enviroflex™ EP 1 Primer
- 5** Plywood/OSB

Enviroflex Overlay to Plywood / OSB

- Exterior grade 18mm Plywood or OSB Roof Deck
- Typical applications:
 - Domestic extensions
 - Garages
 - Dormers
 - Out buildings
 - Summer houses



Refurbishment



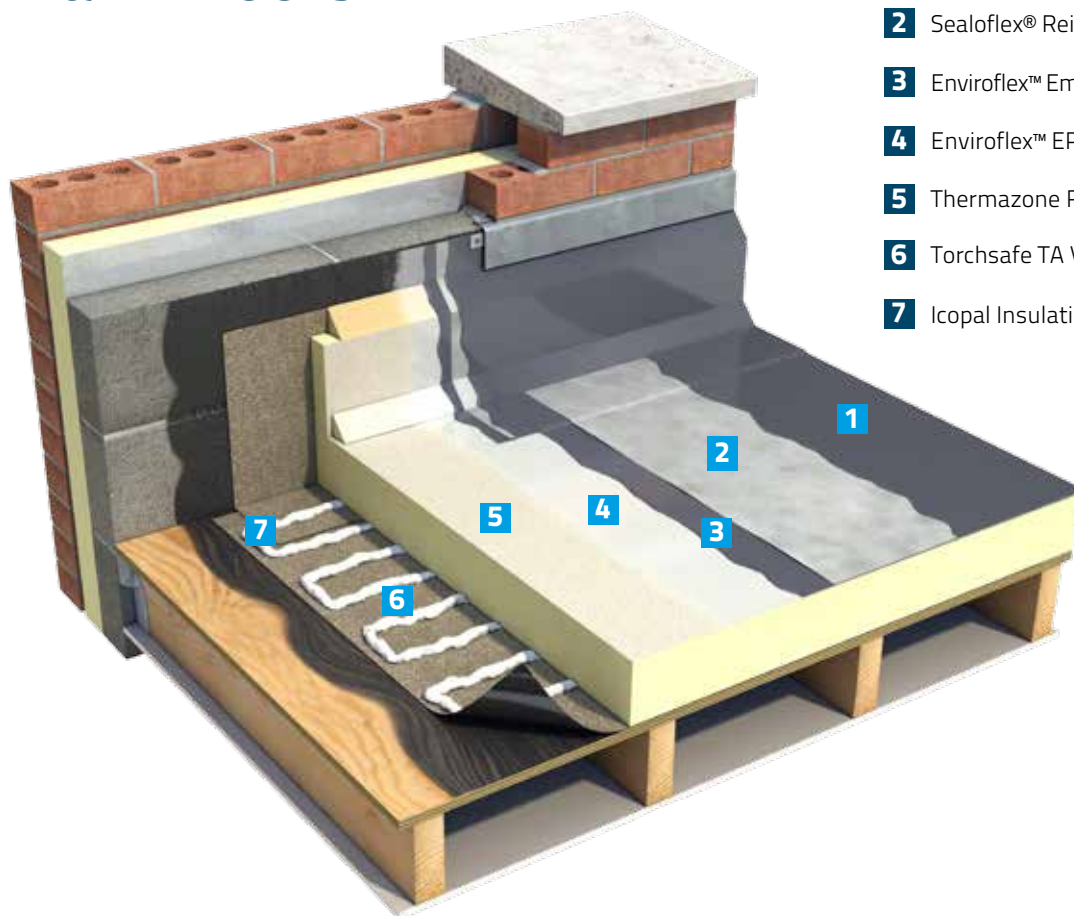
- 1** Enviroflex™ Top Layer
- 2** Sealoflex® Reinforcing Fabric
- 3** Enviroflex™ Embedment Layer
- 4** Acrylic Primer
- 5** Existing Bitumen/Asphalt

Enviroflex Overlay to Existing Asphalt or Bitumen

- Structurally sound roofs need not be stripped and can be overlaid
- Bitumen and asphalt compatible primer
- Typical applications:
 - Existing extensions
 - Garages
 - Bay windows
 - Dormers
 - Commercial projects



Warm Roofs



- 1** Enviroflex™ Top Layer
- 2** Sealoflex® Reinforcing Fabric
- 3** Enviroflex™ Embedment Layer
- 4** Enviroflex™ EP1 Primer
- 5** Thermazone Roofboard Insulation
- 6** Torchsafe TA VCL Sand
- 7** Icopal Insulation Adhesive

New Warm Roof Construction or Refurbishment: Strip and Renew

- Completely flame free warm roof system
- Typical applications:
 - Existing and new domestic buildings
 - Commercial projects
- Insulation board joints to be locally reinforced
- Carrier membrane available for larger projects or when looking to waterproof insulation quickly



System **Installation**

General Guidance

Before applying the Enviroflex™ System ensure that surfaces to be coated are firmly fixed, dry, smooth and free from any contaminants that could inhibit adhesion.

Substrates

The Enviroflex™ System can be applied to a wide range of new and existing substrates, where alternative, more traditional methods of waterproofing prove difficult.

- Bitumen membranes
- Weathered asphalt
- Plywood & OSB/3 – new or existing
- Concrete / cementitious screeds
- Single ply membranes
- Metals – galvanised or coated
- Profiled cement sheeting
- Profiled asbestos sheeting
- GRP/ fibre glass

Roof Falls

The roof should be constructed to have a minimum finished fall of 1:80, in accordance with "BS 6229 : Flat roofs with continuously supported coverings. Code of practice". A designed fall of 1:40 is recommended to allow for inaccuracies and construction settlement.

Drainage

Drainage should be provided through internal outlets and downpipes, or to roof edges with external gutters/hoppers. It is recommended that the roof has a minimum of two outlet points in case of blockage.

Site Safety

It is the responsibility of the installer to ensure that the work carried out is safe for themselves, their employees, their customers and the general public.

Protective Clothing

Always use relevant Personal Protection Equipment (PPE) i.e. hand protection, eye protection, ear protection, hard hats and safety footwear where and when appropriate.

Application Conditions

The surface of the substrate should be clean and dry and must be 3 °C above the dew point. If the surface is below or at dew point temperature then moisture can form at the surface and affect adhesion and curing. Do not apply the membrane over frozen matter.

Board Joints

Plywood and OSB/3 board joints should be bandaged with 100mm wide Sealoflex® Reinforcing Fabric embedded within a light application of Enviroflex™ Liquid Applied Waterproofing.

Accessory Products

In domestic applications profiled GRP trims can be applied to simplify detailing to the roof perimeters at drip and watercheck edges and abutments as appropriate.

Sequence of Installation

All preliminary work including the application of pre-fabricated upstands, drip trims, kerbs, chases, expansion joints, etc. should be complete and satisfactory prior to application of the Enviroflex™ membrane. These prepared details should be waterproofed before the main field area application.

Storage of Materials

Containers should be stored in a dry and cool environment on a flat, level, and clean surface away from sources of ignition. Protect the product against moisture, direct sunlight and extremes of temperature. Keep containers tightly closed when not in use.

Cleaning

Clean tools immediately after use. Wash hands after use.

Prime

Enviroflex™ Primers are applied by brush or roller to seal the substrate prior to application of the Enviroflex™ Waterproofing System.

Wet-on-Wet Application

The Enviroflex™ membrane is applied 'wet-on-wet' allowing full membrane application in a single process. The three stage process is as follows:

Embedment Layer

Gently stir opened container using a paddle and apply directly to the prepared substrate at the recommended coverage rate.

Reinforcement

Embed the polyester reinforcement fabric into the embedment layer.

Top Layer

Encapsulate the installed reinforcement fabric by making a further application of Enviroflex as the top layer at the specified coverage rate.

Walkway

The Enviroflex™ Anti-Skid Walkway is applied as follows:

Preparation Coat

Once the Enviroflex™ waterproofing system has cured, apply Enviroflex™ Coating at a coverage rate of approximately 0.2 L/m².

Anti-Skid Quartz

Broadcast the Enviroflex™ Quartz granules into the preparation coat at a rate of approximately 2.5 kg/m².

Encapsulation

Encapsulate the Enviroflex™ Quartz layer with the application of Enviroflex Wearcoat Clear at a coverage rate of approximately 0.5 L/m².

Further Information

For further information, please contact Icopal's Technical Service Department.



Examples of preformed GRP Trims available through your local distributor.



Drip Edge Trim

Watercheck



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