Monarplan PVC

Single Ply Waterproofing Systems
Monarplan PVC
single ply waterproofing
from Icopal

PVC membranes from Icopal have been in use for over 30 years, covering roofs of all types and form. Whether it’s domestic or commercial, public or private; Monarplan PVC membranes offer a flexible and lightweight waterproofing solution with a proven track record.

Monarplan is a flexible PVC (polyvinyl chloride) single ply membrane offering excellent characteristics of strength, elongation and weathering, making it ideal for new build or refurbishment projects.

All Monarplan membranes are reinforced and are available with or without a fleece backing providing scope for all methods of application, such as mechanically fastened, adhered or loose laid and ballasted.

**Diversity**
Monarplan PVC membranes have been successfully installed on a range of commercial and domestic projects including some of the following building types:

- Schools / Universities
- Hospitals
- Private residences
- Factories & Warehouses
- Offices
- Supermarkets
- Retail developments

**Reliability**
Clients and private customers can be reassured by the range of insurance backed guarantees and third party accreditations offered with Monarplan PVC membranes.

- Guarantees options for 10, 15 & 20 years
- BBA and ETA Certified product
- Sustainability - A+ BREEAM Rating*
- SPRA member

*subject to roof build up
Monarplan Membranes

Monarplan is a flexible PVC-P single ply membrane offering excellent characteristics of strength, elongation and weathering making it ideal for new build or refurbishment projects. Membranes are reinforced and are available with or without a fleece backing providing scope for all methods of application and offering specifiers confidence in performance and unlimited freedom in design.

Monarplan GF Fleeceback
Monarplan GF Fleeceback is glass reinforced PVC membrane incorporating a polyester fleece backing. The factory laminated polyester backing allows the membrane to be fully adhered to the underlying substrate using a compatible cold applied adhesive and can be the ideal solution on curved, steep or undulating roof designs that prove challenging for other systems.

- Thickness: 1.5mm + fleece
- Roll Size: 2.12 x 15m

Monarplan G
Monarplan G incorporates a glass reinforcement encapsulated between two layers of extruded PVC. The membrane is manufactured with a fungicidal additive and is specifically designed for use within ballasted or green roof constructions where the membrane is buried. Monarplan G is resistant to micro organism attack and can provide a long lasting waterproof solution for roof areas that need to be waterproofed fast.

- Thickness: 1.5mm
- Roll Size: 2.12 x 15m

Monarplan FM
Monarplan FM is a polyester reinforced membrane designed specifically for use within mechanically fixed applications. The non-wick polyester fabric gives the membrane inherent tensile strength which is required to facilitate the use of steel fasteners to restrain the system against wind uplift. Mechanically fixed systems can be cost effective solutions, and are ideal where lightweight constructions are considered.

- Thickness: 1.2mm / 1.5mm / 1.8mm
- Roll Sizes: 1.5 x 20m (1.2mm only)
  1.5 x 15m

Icopal is a member of the Single Ply Waterproofing Association [SPRA]. As an association, SPRA’s guiding principle is to ensure that clients obtain high quality polymer based single ply roofing, through a partnership of quality assured manufacturers and contractors.
Performance
With over 30 years of history with synthetic products, Icopal have the knowledge and experience required to produce membranes of the highest quality offering exceptional long life cycle performance, reducing the impacts associated with environmental landfill and whole life cost expenditure.

Aesthetic
Monarplan PVC is available in light grey (RAL7001) and anthracite (RAL7015) colours as standard, enabling the roof to blend seamlessly into a built up area, or to match other construction materials. The range also brings significant design freedom, giving architects the opportunity to create highly distinctive buildings or to sympathetically renovate existing roofs. The pigments used to colour the upper layer of the Monarplan membrane guarantee colour fastness, UV protection, and resistance to ageing. Other colours are available to special order.

Environmental Responsibility
As manufacturers, Icopal are committed to the integration of environmentally considerate activities across all aspects of business. As such, all Icopal manufacturing sites adopt environmental practices and procedures and many manage and control their performance through the ISO 14001 environmental management system.

One of the main environmental benefits associated with PVC is its versatility and ability to re-use waste matter generated during the production process. Waste from membrane cutting, colour changes etc. can be recycled into re-usable material and returned to the manufacturing process, where it can be used to create further membrane or other PVC products.

Guarantee
As a world leader in the manufacture of waterproofing membranes, we pride ourselves on providing the most comprehensive guarantees available in the flat roof waterproofing industry. Icopal guarantees are underwritten by a range of insurance policies covering design, product failure and consequential damage for periods of 10, 15 and 20 years. Icopal’s Product Guarantee insurance is arranged with first class security on the London Insurance Market.

Secure Welding
Monarplan PVC is a thermoplastic membrane. As a result, overlapping sheets can be welded together to form a homogeneous lap using hot air equipment (eg. manual hot air welders or automatic equipment).

Features and Benefits

<table>
<thead>
<tr>
<th>Colour</th>
<th>RAL Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>6004</td>
</tr>
<tr>
<td>Stone Red</td>
<td>3011</td>
</tr>
<tr>
<td>Blue</td>
<td>5005</td>
</tr>
<tr>
<td>White</td>
<td>9010</td>
</tr>
<tr>
<td>Turquoise</td>
<td>5018</td>
</tr>
<tr>
<td>Anthracite</td>
<td>7015</td>
</tr>
<tr>
<td>Grey</td>
<td>7001</td>
</tr>
</tbody>
</table>
Product Support

Whether it is new build or refurbishment, Icopal’s Technical Support Services will ensure all aspects of the proposed roofing scheme comply with all the latest Building Regulations and codes of practice.

Product Support
Complying with the latest building regulations and codes of practice, Icopal’s technical support team ensures that the critical issues and design requirements are identified and resolved in the early stages of the project, removing unwanted waste from the decision process and reducing on site cost and improving build efficiency.

Site Inspection
Acting on behalf of the client, surveyor, architect or other nominated agent, Icopal Area Technical Managers can provide a comprehensive roof inspection and condition report prior to making any recommendations for remedial action. All site inspections include a detailed commentary with photographic record and core samples, where appropriate.

Specifications
Should it be requested, bespoke system specifications are generated following the completion of the site inspection report. Specifications can be created in NBS J42 or in Icopal’s in-house spec-writer format. Each specification will include such things as project specific drawings and make reference to current regulations and standards, ensuring compliance at all times.

Calculations & Designs
Icopal’s Technical Service Department can provide the following range of services:
- U-Value calculations
- Condensation risk assessments
- Standard and bespoke technical drawings
- Tapered insulation designs
- Wind uplift
- Acoustics

Approved Contractors
Icopal recommend the use of trained and approved installers for all their waterproofing systems as a trained operative is required to demonstrate professional levels of competency in all aspects of membrane detailing and application. To receive the current list of Monarplan PVC trained contractors or to become a Monarplan trained contractor, please contact Icopal’s Technical Service Department on 0161 865 4444 or send an email to technical.uk@icopal.com.

Repair and Maintenance
All roof waterproofing systems require periodical inspection and maintenance. BS 6229: 2003 recommends that all flat roofs be inspected twice yearly; (eg. autumn and spring) so that potentially blocked gutters or outlets can be cleared. In areas of high dust or pollution, inspections should be carried out more frequently.
Methods of Application

With today’s construction trends of highly intricate and complex structures and the requirement for higher thermal insulation values, only membranes which aspire to the highest quality standards and possess unquestionable technical properties, will be considered in the design process. The versatility of Monarplan PVC ensures the designer total freedom and security when specifying the roof waterproofing system.

Mechanically Fastened System
Mechanically fixed systems are often favoured above timber or metal decks where the exposure of the fastener on the underside of the structure is not a consideration. This method of application involves the use of thermally broken fasteners fixed at pre-determined centres and is a fast and cost effective method of installing the single ply membrane which is less dependent upon amicable weather conditions.

Fully Adhered System
Fully adhered systems are more commonly used above concrete substrates where the process of installing mechanical fixings is invasive and labour intensive. Fully adhered systems are reliant upon suitable weather conditions (which should be considered). However, complex geometries and pitched surfaces can be accommodated with great success. Fully adhered membranes can also provide a superior surface finish.

Inverted Ballasted Roof System
Inverted roof systems offer an excellent solution for situations where access or recreation are a priority. Ballasted systems also provide maximum resistance against membrane damage, UV degradation, thermal shock, fire or noise.
**Warm Ballasted Roof System**

The Monarplan G membrane is loose-laid and welded together at the overlaps prior to the application of the ballast which holds the membrane in place. This method offers maximum restraint to wind uplift and fast application times, while providing protection from mechanical and solar/UV damage.

**Green Roof System**

The use of an Icopal Green Roof system adds another dimension to a Monarplan PVC roof system. In ballasted or inverted build ups the green roof will act as the ballast to secure the system. Additional ballast may be required around perimeters depending on wind loadings.

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**Guarantees**

As a world leader in the manufacture of waterproofing membranes, we pride ourselves on offering the most comprehensive guarantees available in the flat roof industry, giving further reassurance of our commitment in providing total confidence in our range of high performance waterproofing membranes.

Icopal guarantees incorporate a range of features and benefits tailored to suit the client’s specific requirements, including materials, insurance backing, design, consequential damage and approved installation. All guarantees offer up to 20 years as standard, subject to specification.

Several different levels of guarantee coverage are available as per the following list.

- Insured System Plus Guarantee
- Insured Product Plus & Workmanship Guarantee
- Insured Product Plus Guarantee
- Insured Product Guarantee

For further information on different guarantee options, please refer to the Icopal Insured Guarantees Brochure or contact Icopal Technical Services.
Full System Solutions

Icopal offers a single source solution for complete roof waterproofing. This means simplifying the specification process whilst ensuring that all aspects of an installation attain the same excellent quality through stringent project monitoring and a guaranteed support mechanism.

Vapour Control Layer

Icopal supplies a range of high performance polyethylene and bituminous vapour control layers for use with its single ply roofing systems.

Icopal heat-activated self-adhesive vapour control layers, are manufactured from SBS-modified bitumen and reinforced with an extra strong glass fibre fleece with a PET aluminium foil.

Micoral SK has a blue SYNTAN® resin upper surface allowing the appropriate insulation board to be adhered using Icopal Insulation Adhesive.

Micoral NB is finished with a polyethylene film, and is suitable for use in mechanically fastened applications only.

These membranes are suitable for direct use on metal, timber and concrete deck types.

Also available are Total Torch VCL, and Micotherm SK. Please see individual product literature for further information.

Since these membranes are adhered, they can provide a weatherproof temporary finish to the roof structure prior to the application of the insulation and final waterproofing system.

For mechanically fastened situations, the Monarflex range of reinforced polyethylene vcls, which includes Reflex 275, Monofilament 250, and Netofol, provide a quick and cost effective method of vapour control.

These membranes are loose-laid with laps sealed with Monobond LT tape, and are secured to the roof deck through the mechanical fastening of the insulation board.

Monarflex multi-layer VCL’s are manufactured from virgin polyethylene with built-in reinforcement grids of HDPE making them highly resistant to tears and damage. Some also have a layer of aluminium foil for higher water vapour resistance performance.

For further guidance and product information contact Icopal Technical Services on 0161 865 4444 or visit www.icopal.co.uk
Thermal Insulation

The Thermazone range of insulation boards has been specifically designed to complement Icopal’s single ply roofing systems. These boards are available as a uniformed flat board, or can be supplied in a tapered board to offer a cost effective solution to providing positive falls, even on the most complicated of projects.

Thermazone rigid PIR thermal insulation boards are CFC/HCFC free, have a zero Ozone Depletion Potential (ODP), and have a Global Warming Potential (GWP) of less than 5. They have excellent thermal performance, dimensional stability and are resistant to mould and microbial growth.

Thermazone Foilboard is a rigid PIR insulation board and is faced on both sides with a low emissivity composite foil autohesively bonded to the insulation core during manufacture. Thermazone Foilboard is suitable when the board and waterproofing are being mechanically fastened to the structural deck using screws and washer plates.

Thermazone Roofboard is a rigid PIR insulation board and is faced on both sides with a mineralised glass tissue autohesively bonded to the insulation core during manufacture. Thermazone Roofboard is suitable for use when the board is being adhered to a suitably bonded vapour control layer. It is also suitable when the waterproofing is being adhered to the insulation board. This insulation board may also be used in a mechanically fastened situation.

Thermazone Hydroshield IVR insulation board is for use in inverted roof situations. It is an expanded polystyrene (EPS) board made from a low water absorption polystyrene bead. Thermazone Hydroshield is to be used in conjunction with the Monarperm water reducing layer. Water seeping between the insulation board causes a cooling affect which must be accounted for within thermal calculations. The use of the Monarperm water reducing layer minimises water seepage, allowing better U-value performance for a given thickness of insulant. A separation layer will be required between the Monarplan PVC membrane and EPS insulation.

Mechanical Fasteners

Icopal supply a range of specialist fasteners for securing thermal insulation and Monarplan PVC membranes to a variety of structural roof decks including steel, concrete and timber.

Icopal Tubular Washers eliminate all thermal transmittance associated with metal fasteners, thereby allowing reduced thicknesses of insulation. They are designed with a low-profile washer and narrow tube diameter which aids installation and improves aesthetics.

Icopal Screw Fasteners are manufactured from high grade carbon steel which are case hardened to achieve the properties essential for long term performance and have an organic corrosion resistant finish to meet UEAtc Part 2 requirements.

Thermal insulation boards should be independently mechanically fastened to the structural deck. The number of fixings and the application pattern is dependent upon the size and type of insulation board.

Wind Loadings

Wind loadings should be assessed in accordance with BS EN 1991-1-4 taking into account the height, width and length of a building, its orientation and its geographical location.

Accessories

Monarplan PVC accessories have been individually designed to ensure total compatibility and ease of application and play a vital role in achieving the total integrity of the Monarplan PVC waterproofing system. Amongst others, accessories include Monarplan Coated Metal sheet for the prefabrication of edge trims and details, a range of Monarplan Outlets, Monarplan Walkway Membrane, and an extruded PVC profile for the simulation of traditional metal and standing seam roofs finishes.
Monarplan **Product Range**

The Monarplan range has been designed to ensure total compatibility and ease of application playing a vital role in achieving the total integrity of the waterproofing system. Membranes and accessories are available in light grey and anthracite as standard. Separate technical data sheets on all products are available upon request.

### Monarplan PVC Ancillaries

<table>
<thead>
<tr>
<th>Product</th>
<th>Thickness</th>
<th>Size</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membrane Accessories</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monarplan Reinforced Strip</td>
<td>1.5mm</td>
<td>0.15 x 15m</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Monarplan D Unreinforced Flashing</td>
<td>1.5mm</td>
<td>1.4 x 15m</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Monarplan W Walkway Membrane</td>
<td>2.0mm</td>
<td>1.06 x 15m</td>
<td>Anthracite</td>
</tr>
<tr>
<td>Outlets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monarplan Outlets</td>
<td>-</td>
<td>50/80/90/145mm Ø</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Roofgard Leaf Grate</td>
<td>-</td>
<td>-</td>
<td>Metal</td>
</tr>
<tr>
<td>Monarplan Parapet Outlet</td>
<td>-</td>
<td>100mm Ø</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Roofgard Parapet Leaf Grate</td>
<td>-</td>
<td>-</td>
<td>Metal</td>
</tr>
<tr>
<td>Pipe Boots/Vents/Tube Ducts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monarplan Multiple Cable Duct</td>
<td>-</td>
<td>100mm Ø</td>
<td>Light Grey</td>
</tr>
<tr>
<td>Monarplan Pipe Flashing</td>
<td>-</td>
<td>75 – 125mm Ø</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Pre-fabricated Corners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monarplan Internal Corners</td>
<td>-</td>
<td>-</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Monarplan External Corners</td>
<td>-</td>
<td>-</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Coated Metal/Standing Seam/Lightning Conductor Clips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monarplan Coated Metal</td>
<td>1.2mm</td>
<td>1 x 2m</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Monarplan Standing Seam</td>
<td>25mm</td>
<td>3mm</td>
<td>Light Grey &amp; Anthracite</td>
</tr>
<tr>
<td>Monarplan Lightning Conductor Clips</td>
<td>-</td>
<td>3mm &amp; 5mm</td>
<td>Light Grey</td>
</tr>
<tr>
<td>Adhesives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monarplan Contact Adhesive</td>
<td>-</td>
<td>20kg</td>
<td>Red</td>
</tr>
<tr>
<td>Icopal Single Ply Fleeceback Adhesive</td>
<td>-</td>
<td>20kg</td>
<td>Blue</td>
</tr>
<tr>
<td>Monarplan PVC Cleaner</td>
<td>-</td>
<td>5L</td>
<td>-</td>
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</table>
Icopal supply a range of specialist fasteners for securing thermal insulation and Monarplan PVC membranes to a variety of structural roof decks including steel, concrete and timber.

**Icopal Tube Washers/Fasteners/Fixing Bars/Pressure Plates**

<table>
<thead>
<tr>
<th>Product</th>
<th>Size Note</th>
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</thead>
<tbody>
<tr>
<td>Tube Washers</td>
<td></td>
</tr>
<tr>
<td>Icopal R45 Insulation Washers (45mm Ø)</td>
<td>15/35/65/85/105/135/165/185/195/225/255/285/325/365/405mm</td>
</tr>
<tr>
<td>Icopal R75 Insulation Washers (75mm Ø)</td>
<td>35/65/85/105/135/165/185/195/225/255/285mm</td>
</tr>
<tr>
<td>Fasteners</td>
<td></td>
</tr>
<tr>
<td>Icopal BS-4.8mm Carbon Steel Fastener (timber &amp; metal decks)</td>
<td>50/60/70/80/90/100/110/120/130/140/150/170/190/200/220/240/260/300/320/360mm</td>
</tr>
<tr>
<td>Icopal BS-S-4.8mm Stainless Steel Fastener (timber &amp; metal decks)</td>
<td>60/80/100/120/140/160/180/200mm</td>
</tr>
<tr>
<td>Icopal Ti-T25 Carbon Steel Fastener (Dense concrete decks)</td>
<td>32/50/60/70/80/90/100/120/160mm</td>
</tr>
<tr>
<td>Icopal Ti-S-Z10 Stainless Steel Fastener (Dense concrete decks)</td>
<td>45/75/115mm</td>
</tr>
<tr>
<td>Icopal TIA-T25-6.3 Carbon Steel Fastener (Dense concrete decks with tapered insulation)</td>
<td>70/90/120/150mm</td>
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<tr>
<td>Fixing Bars</td>
<td></td>
</tr>
<tr>
<td>Icopal Galvanised Fixing Bar (peel stops)</td>
<td>3m x 25mm</td>
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<tr>
<td>Icopal Termination Bar</td>
<td>3m x 25mm</td>
</tr>
<tr>
<td>Pressure Plates</td>
<td></td>
</tr>
<tr>
<td>Icopal IRC/W (timber substrates)</td>
<td>82 x 40mm</td>
</tr>
<tr>
<td>Icopal IRD (soft insulation)</td>
<td>82 x 40mm</td>
</tr>
</tbody>
</table>

**Insulation**

<table>
<thead>
<tr>
<th>Product</th>
<th>Thickness Note</th>
<th>Size Note</th>
<th>Application</th>
</tr>
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<tbody>
<tr>
<td>PIR Insulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermazone Foilboard (PIR)</td>
<td>30/35/40/50/60/70/80/90/100/110/120mm</td>
<td>1200 x 2400mm</td>
<td>Mechanically Fixed</td>
</tr>
<tr>
<td>Thermazone Roofboard (PIR)</td>
<td>25/30/40/50/60/70/80/90/100/110/120mm</td>
<td>1200 x 2400mm</td>
<td>Mechanically Fixed &amp; Fully Adhered</td>
</tr>
<tr>
<td>EPS Insulation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermazone Hydroshield IVR*</td>
<td>120/150/160/170/180/205/220/240/260/320mm</td>
<td>1200 x 590mm</td>
<td>Inverted Roofs</td>
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</tbody>
</table>

*Thermazone Hydroshield IVR to be used in conjunction with Monarperm water reducing layer.

**Vapour Control Layer**

<table>
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<tr>
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<th>Thickness</th>
<th>Size</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforced Polyethylene</td>
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<td></td>
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</tr>
<tr>
<td>Netofol</td>
<td>0.2mm</td>
<td>2 x 50m</td>
<td>Loose-laid &amp; Mechanically Fixed</td>
</tr>
<tr>
<td>Monofilament 250</td>
<td>0.25mm</td>
<td>2 x 50m</td>
<td>Loose-laid &amp; Mechanically Fixed</td>
</tr>
<tr>
<td>Reflex 275</td>
<td>0.3mm</td>
<td>2 x 25m</td>
<td>Loose-laid &amp; Mechanically Fixed</td>
</tr>
<tr>
<td>Reinforced Bitumen Membranes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micoral SK</td>
<td>1.5mm</td>
<td>1 x 15m</td>
<td>Heat-activated/Self Adhesive</td>
</tr>
<tr>
<td>Micoral NB</td>
<td>0.25mm</td>
<td>1.08 x 50m</td>
<td>Heat-activated/Self Adhesive</td>
</tr>
<tr>
<td>Total Torch</td>
<td>3.5mm</td>
<td>1 x 7.5m</td>
<td>Torch-applied</td>
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<tr>
<td>Vapourbar</td>
<td>1.8mm</td>
<td>1 x 20m</td>
<td>Bonding Bitumen (Pour &amp; Roll)</td>
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</tbody>
</table>
Monarplan ancillaries have been individually designed to ensure total compatibility and ease of application and play a vital role in achieving the total integrity of the overall Monarplan waterproofing system. All membranes and ancillaries are available in light grey and anthracite as standard. Separate technical data sheets on all products are available upon request.

**Monarplan Coated Metal**

Monarplan Coated Metal is a 0.6mm hot dipped galvanised steel sheet coated with a layer of 0.6mm non-reinforced PVC film for an overall thickness of 1.2mm. The sheet is cut into appropriate widths and used to fabricate metal drip edges or other roof perimeter edging profiles. The coated metal can also be used to provide mechanical restraint at any changes in level, abutments or roof area perimeters.

**Monarplan Reinforced Strip**

Monarplan Reinforced Strip is used to achieve a watertight detail where end laps of the Monarplan PVC GF Fleeceback membrane are butt jointed. It is also used in conjunction with coated metal drips and upstands.

**Monarplan D Unreinforced Flashing**

The Monarplan D unreinforced flashing is intended to be used in the formation of internal/external corners, field fabricated pipe flashings, sealant pockets and scuppers, when the use of pre-moulded accessories are not feasible.

**Monarplan W Walkway Membrane**

Monarplan Walkway Membrane is a weather resistant PVC membrane which is anthracite in colour and incorporates an embossed, non-slip, interlocking herringbone tread pattern.

**Monarplan Prefabricated Corners**

Prefabricated corners aid speed of installation on site, and are used to reinforce internal and external corners with no stretching or cutting required.

**Monarplan Pipe Flashing**

Monarplan Pipe Flashing are moulded preformed PVC pipe flashings designed to suit a range of pipe diameters, achieving a watertight seal.
Monarplan Standing Seam Profiles
Monarplan Standing Seam Profiles provide the specifier a cost effective way to replicate the aesthetic appearance of traditional metal standing seam roofs.

Monarplan Outlets
Monarplan Outlets are manufactured from acid resistant stainless steel incorporating a Monarplan PVC flange for easy welding to the roof membrane. Connection is made with the plumbing using specially designed sponge rubber ‘O’ rings. Supplied in both standard and parapet form, the Monarplan Outlet range is completed with leaf guards and connection attachments where required.

Monarplan Lightning Conductor Pads
Monarplan Lightning Conductor Pads comprise a lightning conductor cable clip mechanically attached to a circular PVC membrane disc which is then welded to the main Monarplan PVC roof membrane. The clips are available to suit either a bare copper, or a PVC-coated, conductor strip. Standard membrane colour available is light grey.

Monarplan Cable & Tube Ducts
Monarplan Multiple Cable Duct consist of a PVC pipe providing a rigid upstand, capped with two PVC pipe elbows. The integral PVC membrane flange can be welded to the underlying membrane to maintain the waterproofing detail.
Icopal Single Ply Fleeceback Adhesive

Icopal Single Ply Fleeceback Adhesive is a high strength, single component moisture curing polyurethane adhesive that has been formulated for bonding fleece-backed Single Ply roofing membranes to various substrates including suitable roof insulation panels, such as Thermazone Roofboard. The cured adhesive film has very good resistance to heat and hydrolysis, and is blue/green in appearance.

Monarplan Contact Adhesive

Monarplan Contact Adhesive is a high strength solvent based contact adhesive that allows the bonding of Monarplan non-fleeceback reinforced membranes to various porous and non-porous substrates. The adhesive provides instant contact adhesion and is particularly useful at details such as upstands and abutments.

Icopal Galvanised Fixing Bar (peel stop)

Icopal Galvanised Fixing Bar is a 3m galvanised steel bar with pre-drilled holes at specified centres to facilitate the mechanical restraint of Monarplan membranes at the base of upstands or angle changes. It should be fastened to the more stable substrate, i.e. fixed vertically to the structural deck or horizontally to masonry or concrete upstands.

Icopal Termination Bar

Icopal Termination Bar is designed for securing and sealing membrane terminations at upstands in accordance with current Icopal specifications. The 3m long bar incorporates pre-drilled holes at 150mm centres.

Icopal Screw Fasteners, Tubular Washers & Pressure Plates

Icopal Screw Fasteners are manufactured from high grade carbon steel which are case hardened to achieve the properties essential for long term performance and have an organic corrosion resistant finish to meet UEAtc Part 2 requirements. The fasteners are also available in austenitic stainless steel offering exceptional corrosion resistance for extended warranty projects.

Icopal Tubular Washers are precision moulded from high grade polypropylene and extensively tested to ensure resistance to the extreme temperatures and mechanical stresses encountered within the roofing system. They are blue in colour and are available with two washer diameters: A 45mm diameter for fixing membranes and a 75mm diameter for fixing rigid insulation boards.

Icopal Pressure Plates are manufactured from high quality corrosion-resistant stainless steel. Icopal Pressure Plates are for use where tube washers cannot be utilised or where the membrane is being fastened when insulation is not present, e.g. cold roof situations.
Complimentary Products

Icopal’s approach to providing a fully guaranteed and integrated waterproofing solution is to include a range of specifically designed complimentary products eliminating the need for split responsibility or unknown quality.

Dalite Rooflights and Hatches
It is now accepted that natural light in buildings helps create better quality environments for people, improving their concentration and general feeling of well-being, leading to better productivity.

Specifying and installing a Dalite Rooflight helps ensure optimum and uniform natural light in rooms, guaranteeing both health and economic benefits.

Roofgard Paving Support System
Roofgard Paving Support System provides a versatile and cost effective means of creating a fully supported and stable raised paved area, terrace, walkway or balcony. They are suitable for use with concrete paving tiles, or Icopal Terradek timber decking tile.

Icopal Roof Plant and Equipment Support
Provides a cost effective way of supporting rooftop equipment and services without penetrating the waterproofing. The system is lightweight and adaptable avoiding unnecessary costly detailing.

Icopal Roof Safety Systems
Icopal provides a range a Roof Safety Systems including guard rail and fall restraint systems.

There is a duty of care placed upon employers outlined in the Working at Height Regulations 2005 to provide safe methods of access and protection for personnel accessing roofs. Icopal can advise and design fall protection and roof safety systems with guaranteed waterproofing as part of the overall roof specification.