



# Monarplan®

Reliable PVC Waterproofing Systems



**Lightweight**  
**Reliable**  
**Versatile**  
**Economical**  
**Distinctive**



# Monarplan® PVC waterproofing systems with proven track record

**PVC membranes from Icopal have been in use for over 50 years, covering roofs of all types and form. Whether it's domestic or commercial, public or private; Monarplan 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 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



# 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 FM

Monarplan FM is a polyester reinforced membrane designed specifically for use within mechanically fixed applications. The 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.

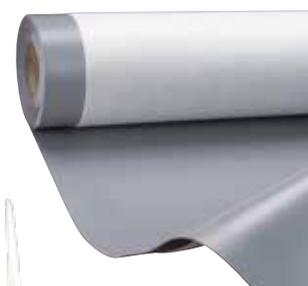
Thickness:	1.2mm / 1.5mm / 1.8mm / 2.0mm
Width:	1.06m / 1.09m / 1.54m / 1.65m / 2.12m / 2.18m
Roll lengths:	15m (for 1.5mm, 1.8mm, 2.0mm thickness) 20m (for 1.2mm thickness)



## 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 can provide a long lasting waterproof solution for roof areas that need to be waterproofed fast.

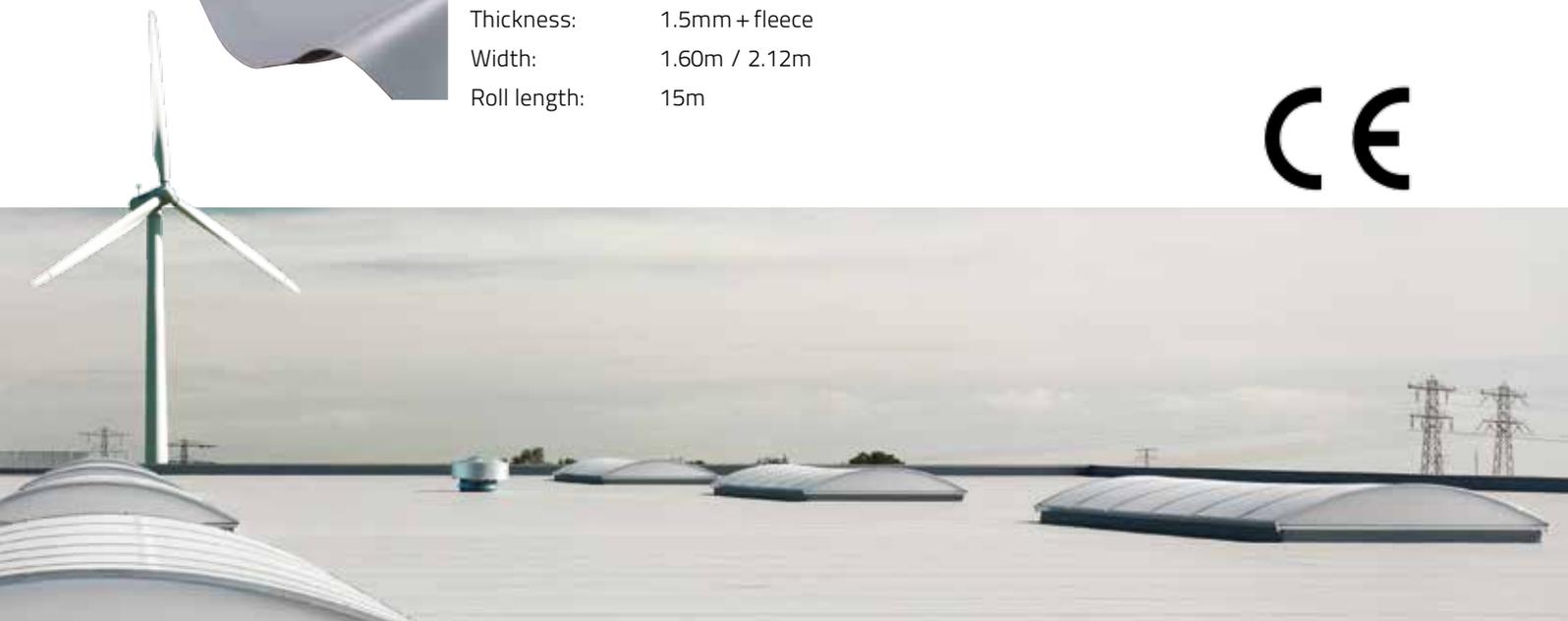
Thickness:	1.2mm / 1.5mm / 1.8mm
Roll Size:	2.12 x 15m (for 1.5mm and 1.8mm thickness) 2.12 x 20m (for 1.2mm thickness)



## Monarplan GF

Monarplan GF is glass reinforced PVC membrane incorporating a polyester fleece backing. The factory laminated polyester backing allows the membrane to be fully or partly 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
Width:	1.60m / 2.12m
Roll length:	15m



# Features and Benefits

## Performance

With over 50 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 grey and anthracite 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.

If you want the colours to last for an even longer time, then there are also the Monarplan LA (lacquered) membranes. With this lacquered feature the lifetime of the roof will be extended. The lasting colours will bring added value to the building. Aside from the lacquered membranes, there are also special embossed membranes available.

Together with Monarplan's special accessories, the Monarplan membranes give a distinctive appearance to your building.

## 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.

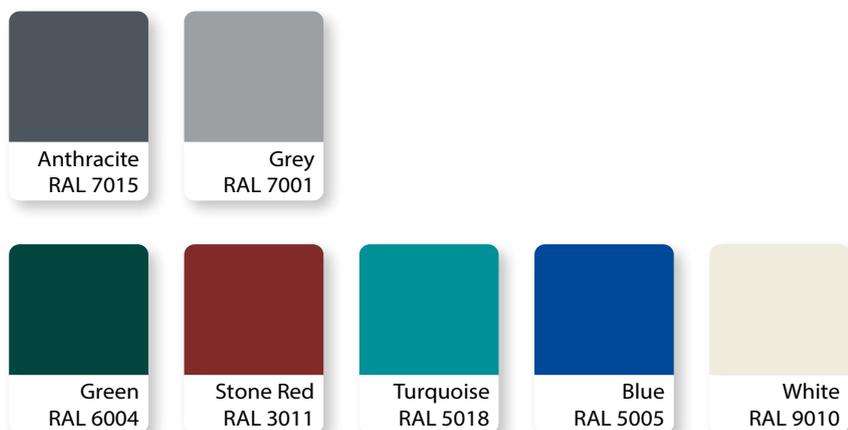
One of the main environmental benefits associated with PVC is its versatility and ability to re-use waste matter generated during the production process. Waste from membrane cutting, colour changes etc. can be recycled into re-usable material and returned to the manufacturing process, where it can be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

## 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.

## Secure Welding

Monarplan 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).



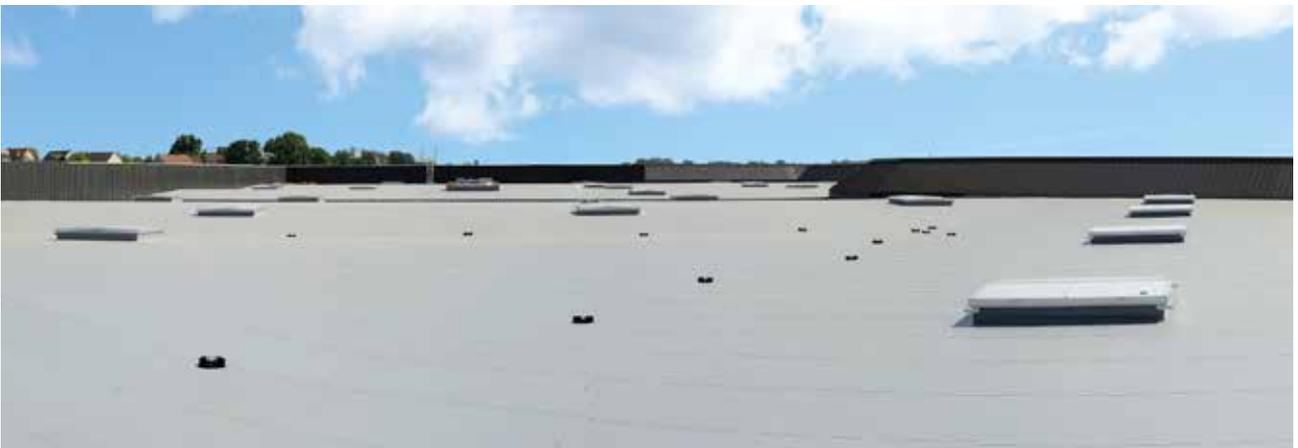
RAL colours for indication only.

# Monarplan's presence throughout Europe

Monarplan membranes have been applied all over Europe.  
No matter what climate, Monarplan will stand the test of time.



**Poland**, Komorniki, warehouse, 24 000 m<sup>2</sup>



**France**, Thillois, mall, 45 000 m<sup>2</sup>



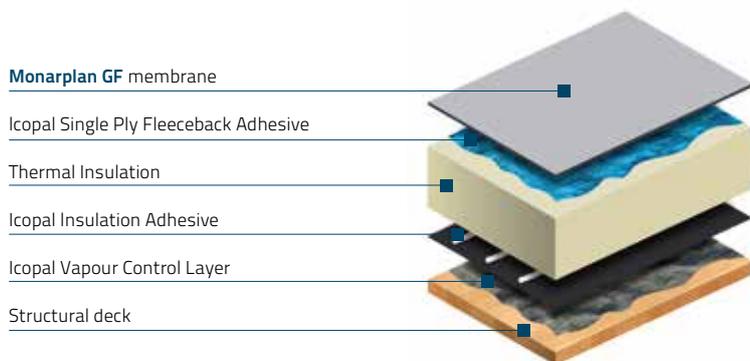
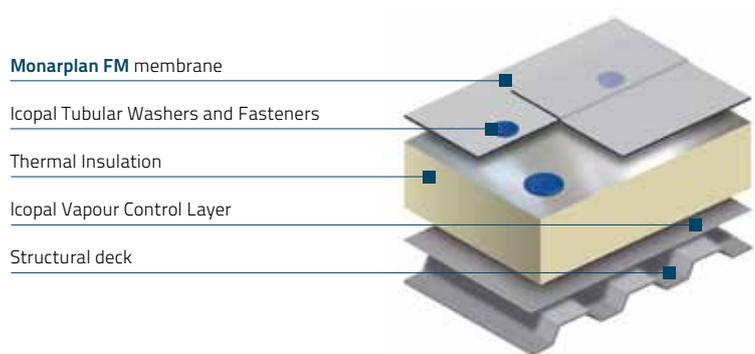
**United Kingdom**, Liverpool, industrial building, 4700 m<sup>2</sup>

# 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 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 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.

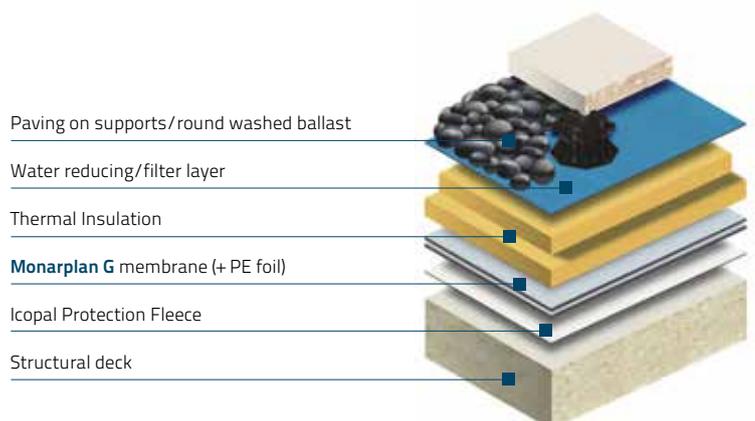


## Partly or Fully Adhered System

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

Paving on supports/round washed ballast

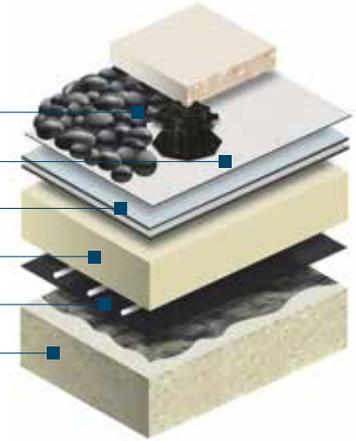
Icopal Protection Fleece

**Monarplan G** membrane (+ PE foil)

Thermal Insulation

Icopal Vapour Control Layer

Structural deck



Icopal Green Roof System

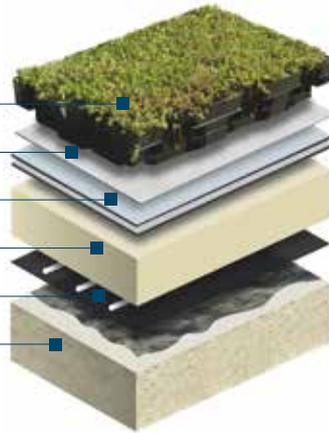
Icopal Protection Fleece

**Monarplan G** membrane (+ PE foil)

Thermal Insulation

Icopal Vapour Control Layer

Structural deck



### Green Roof System

The use of an Icopal Green Roof system adds another dimension to a Monarplan 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.

# Monarplan Accessories

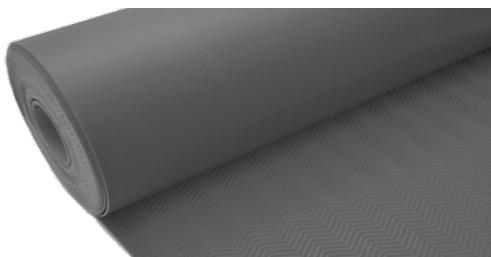
For the most recent portfolio information, please take a look at our website: [www.icopal-synthetic.eu](http://www.icopal-synthetic.eu)



Different prefabricated corners



Standing seam profile



Monarplan W



Monarplan D



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