

The invisible security

No roof constructions are in itself 100% tight, against wind blown rain or snow that can enter through the roof and down into the wooden construction. On long term this leakages can cause damage beyond repair to the entire roof construction. Even before the wooden roof construction is damaged the hugely important insulation material will have been destroyed and subsequently lost its ability to insulate. The house owner will subsequently have huge extra cost on either heating or cooling the house.

Therefore to avoid this both technical and economical disaster it is important as a house owner, craft man, roofer or contractor to choose the right secondary roof – The Roofing Underlay.

In pitched roofing solutions a roofing underlay of high durability for the right roof construction is mandatory, so which roofing underlay should you use?

To start with it will be necessary to define which of the two main roof constructions you are building:

1. Ventilated roof construction
2. Unventilated roof construction

This will lead you to two choices of roofing underlay materials for the correct, optimal and durable solution.



Ventilated roof constructions

– the classic roof underlay solution

The ventilated roof is the traditional construction method used for roofs with a pitch angle of more than 15°.

The ventilated roof can be either a warm roof or a cold roof. In a warm roof thermal insulation follows the rafter line whereas in a cold roof thermal insulation is installed horizontally at sealing level. In any case a ventilation gap between a vapour tight Monarflex® roofing underlay and the insulation is needed. This ventilation gap will ensure a free and continuous ventilation to avoid harmful condensation built-up in the insulation material.

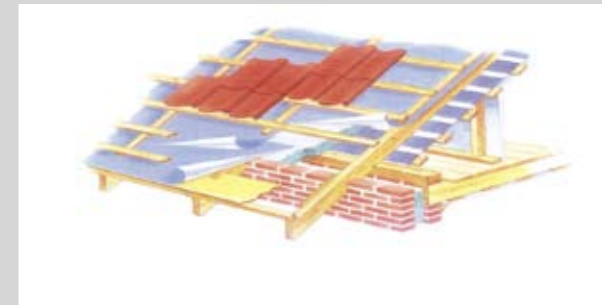


Unventilated roof constructions

– the innovative high vapour permeable underlay solution

The vapour permeable roofing underlay is also called the breathable roof. This type of underlay can be used for roofs with a pitch angle of more than 20°.

The feature of this roof construction is that no ventilation gap needs to be built-in meaning no cold air will cool the insulation material down and thereby no insulation value is lost. This means that MONARPERM® vapour permeable roofing underlay is especially suitable for pitch roof constructions where the room in the roof will be used for living in, which is referred to as a warm pitch roof.



How to choose the right product?

It is very important to choose the right product for a specific building project. If the product does not fulfil the requirements or your expectations, it can have enormous economic consequences.

The following conditions should always be evaluated carefully before choosing a product:

- Type of construction and roof pitch angle
- Type of roofing material
- Installation method
- Type of work to be conducted (e.g. new build or renovation of a house)

The table in this folder can be used as a guideline in choosing the right Monarflex® roofing underlay for the right job, but it does not replace exact calculations.



Product sector guide

Pitched Roofing

Your guide to Monarflex Roofing Underlay

Pitch roof main construction types		Type of roofing material	Installation method	Type of work	
				New build	Renovation
	Cold roof system with traditional ventilation needed	<ul style="list-style-type: none"> - Clay/metal tiles - Concrete tile - Asbestos cement - Slates 	Over rafters	Monarfol 145 Plus Def'x Multi Monarfol 250 Monarfol 500	Monarfol 145 Plus Def'x Multi
	Cold roof system with ventilation needed		Directly on hard boarded wood	Def'x Multi Monarfol 500	Def'x Multi Protect 1F
	Warm roof system with no ventilation needed		Over rafters directly on insulation	Monarperm Classic T Monarperm 500 Monarperm 700	Monarperm Classic T Monarperm 500 Monarperm 700
	Warm roof system with no ventilation needed		Directly on hard boarded wood	Monarperm 700 Monarperm Ultra Plus T Monarperm Light	Monarperm 700 Monarperm Ultra Plus T Monarperm Light
	Warm roof system with traditional ventilation needed		Over rafters	Monarfol 145 Plus Def'x Multi Monarfol 250 Monarfol 500	Monarfol 145 Plus Def'x Multi
	Warm roof system with need for ventilation		Directly on hard boarded wood	Def'x Multi Monarfol 500	Def'x Multi
	Warm roof system with need for ventilation		<ul style="list-style-type: none"> - Singles - Metal tiles - Slates 	Directly on hard boarded wood	Monarflex Protect 1F

Monarflex a/s

Monarflex a/s has for many years been one of the worlds leading manufacturers of polyethylene reinforced and non-reinforced sheeting and membranes used in the building and construction industry. Monarflex products are widely used for any type of covering, containment or weather protection purposes. Our knowledge of different plastic combinations and the technology to laminate different components together, allow us to manufacture high quality products. Since the 1950'ies we have improved our product and process knowledge through continuous research to develop reinforced products for all application purposes. Innovation, quality and high performance products have always been the trademark of our products: *"Monarflex protects your House"*

The best distribution network in the business

As part of the Icopal Group, Monarflex a/s belongs to a professional family with a strong presence throughout Europe. Icopal is present in 25 countries around the world so you can always find a local office. The benefit for you as a customer is that you can always seek guidance and information in your own language from an Icopal office nearby. We are able to minimize delivery time through local stocking in your area.



Monarflex® Protects your House