

# MONNELI INSUWRAP 1500 WM-FB

1.5 mm thick with Fleeceback PVC Membrane for covered roofing system

## Product Description

Insuwrap 1500 WM-FB is a homogeneous PVC (polyvinylchloride) sheet waterproofing membrane with a calendared geotextile layer on the back.

## Properties

Appearance: PVC rolled sheet membrane  
Membrane thickness: 1.50mm + Felt  
Colour: White, Twin Colors

## Uses

Waterproofing of covered Roofs and podiums

## Advantages

- High tensile strength and elongation
- Hot air weldable
- Flexible throughout life span
- Resistant to ageing
- Long durability
- High dimensional stability
- Anti-Root membrane
- Can be installed on wet and dry substrates
- Designed to be used in hot climates
- Reaction to Fire - Class B
- Covered Application

## Standards:

Tested according to testing requirements of ASTM D4434 and DIN 16730.

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## Technical Data

Test Performed	Standard Requirements	Results
Membrane Thickness	ASTM D 4434	1.5 + Felt
Mass	DIN16730	2.10 kg/m <sup>2</sup>
Tensile strength	DIN 16730 Min 10.40 N/mm <sup>2</sup>	≥15.0 N/mm <sup>2</sup>
Elongation at break	DIN 16735 Min 150%	>300%
Thermal Stability	DIN 16735 Less than 1% (6 hrs - 90°C)	<1.0%
Tear Strength	Min 80 N	> 125N
Seam Strength	ASTM D 4434	>82%
Tear Resistance	ASTM D 4434	>95 N
Puncture Resistance	DIN 16735 Drop hammer 500 grams, from 300mm no leak	Passed
Water Vapour diffusion Resistance	DIN16735 Less than 30,000	<22,000 μ
Cold Bend	DIN 16735 No cracks at -20°C	No cracks at -30°C
Resistance to Algae & Rot		High resistance
Roots penetration	No roots penetration	No penetration, Growth dies off
Fire Class	DIN 4102	Pass (Class B2)

## Complementary products:

PVC Coated Aluminium sheet for termination

Geotextile membrane

Protection layer

PU Sealant

Aluminium flashing

Steel washers

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## Instructions of use:

### Substrate Preparation

The surface of the sloping concrete shall be sound, clean, dry or wet, and uncontaminated. This preparation shall be as such as to leave a sound exposed concrete surface free from dust, laitance and any delirious matter.

### Application:

#### PVC FLEECE BACK SHEET INSTALLATION (FULLY BONDED SYSTEM)

Install fleece back PVC sheets over entire roof area so the light colour is at the visible side and the fleece back towards the substrate.

##### A. Horizontal Installation:

1. Install the separation layer over the entire horizontal area before the PVC membrane (if needed) in full accordance with Colmef's method statement
2. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required. Stagger end laps.
3. Install the Geotextile membrane as a separation layer above the PVC membrane followed by a minimum of 50mm extruded polystyrene thermal insulation
4. As much as practically possible the joints will not be against the direction of flow.

##### B. Upstands:

1. Apply the 1500 WM-UV membrane directly on the concrete up-stand with Neofil S10 contact adhesive.
2. Secure top termination of waterproofing with continuous, Aluminum flashing strip, and Elastoseal PU25, a Polyurethane sealant from Colmef.

##### C. Seam Installation: Hot air welding and end laps of overlapping sheets according to manufacturer's method statement to ensure a watertight seam installation. Inspect outside edge of seams with pointed metal probe and ensure completed laps lay flat through one of the following methods:

1. Method 1: All seams of installed waterproofing can be subject to pneumatic test at test pressure of 2.00 bars.
2. Method 2: Testing the welded joint using a vacuum test machine

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- D. Any hole, resulting from construction activities, noted in installed membrane shall be repaired in accordance with manufacturer's method statement.

## CORNER JOINT INSTALLATION

- A. Install corner details in accordance to waterproofing manufacturer's written instructions.
1. Use same welding system as specified for membrane.

## Ambient Air Temperature

+5°C - +60°C

## Packaging

Roll size: 2.10 m (roll width) x 20m (roll length)

## Storage

Rolls shall be stored in their original package, in horizontal position and under cool and dry conditions protected from direct sunlight and rain.

Insuwrap PVC membrane does not expire and has a very long life expectancy.

## Limitations

- Do not directly apply the PVC membrane permanently on bitumen and plastics other than PVC, a separation layer of geotextile is required.
- The PVC membrane can be exposed to temporary UV light for a period of 6 months
- Insuwrap 1500 WM-FB can be exposed temporary to ground water or polluted water with temperature up to 50°C for 3 months.

## Health and Safety

- Local safety regulations must be observed. Information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet.

## Legal Notes

- The information, and, in particular, the recommendations relating to the application and end-use of Colmef Insuwrap products, are given in good faith based on Colmef current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Colmef's recommendations.

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