MonniSeal!1200 TNL-FB

1.2 mm thick Fleece-back PVC Membrane for Underground Structures & Tanking System

Product Description

MonniSeal 1200 TNL-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:	1.20mm + Felt
Colour:	White, Twin Colours

Uses

Waterproofing of basements, tunnels and other underground structures

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
- Resistant to natural aggressive mediums in ground water soil
- Time and cost efficient
- Reduces the wrinkles in the geotextile layer
- Eliminates the risk of burning he geotextile under the PVC membrane during the welding process
- Minimize the risk of overlaps in geotextile

Standards

Tested according to testing requirements of DIN 16938, DIN 16730, ASTM D3083 and SIA 280/10,11,12,15.

T +974-4460-0862
E office@monneli.com
A New Industrial Area, Street #2, Zone 81, Gate 235
P.O.Box 13310, Doha, Qatar
monneli.com

Technical Data

TEST PERFORMED	STANDARD AND REQUIREMENTS	RESULTS
Membrane Thickness (mm)		1.2 + Felt
Tensile Strength Machine Direction Perpendicular Direction mpA	ASTM – D638 DIN 16730 10.40 N/mm^2	≥15.0 N/mm^2
Elongation at Break (%)	ASTM – D638 DIN 16730	>300%
Tear Strength (N)	DIN 16730 80N (Min)	>100N
Thermal Stability	DIN 16730 90°C -6 hours Change less than 2%	<0.7%
Hardness Shore A (3 seconds)	ASTM D2240 78 DIN 16730	80±1
Cold bend	DIN 16730 No cracks at -20 °C	No Cracks at -30 °C
Water Vapour diffusion resistance (μ)	DIN 16730 Less than 30,000	<21,000 μ
Tensile Strength Modulus Perpendicular (Psi)	ASTM D638 DIN 16730	1210 Psi
100% Modulus Machine Direction (Psi)	ASTM D638 DIN 16730	730
100 % Modulus Perpendicular Direction (Psi)	ASTM D638 DIN 16730	730
Specific Gravity	ASTM D792 DIN 16730	1.28
Compressive Strength	SIA V 280/14	Passed
Puncture Resistance	DIN 16730 Drop hammer 500 grams, no leak on falling from 300 mm	Passed
Impact Strength	DIN 16726/15.12	>800mm
Resistance to Algae & Rot	High resistance	High resistance

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Complementary products:

PVC Coated Aluminium sheet for termination
Geotextile membrane: **Armofab**
Protection layer
PU Sealant: MonniSeal PU
Re-injectable hose: MonniJoint RHS Injection Resin: MonniCryl 60
Solvent base contact Adhesive: **Neofil S10**

Instructions of use:

Substrate Preparation
The surface of the concrete substrate 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.
The granite surface must not contain broken aggregates. Any leaks shall be sealed with MonniPlug, a water plug mortar, or with MonniCryl 60, a Polyurethane injection resin. The surface of the granite and fine sprayed concrete must be cleaned (no loose stones, nails, wires, etc.).

Application:

PVC FLEECE BACK SHEET INSTALLATION (FULLY BONDED SYSTEM / LOOSELY LAID SYSTEM)

A. A. General: Install Fleece back sheets over entire area in full accordance with manufacturer's method statement.

1. Install membrane so that the PVC is at the visible side and the fleece back is towards the substrate.

B. Horizontal Installation

1. Adhere the fleece back PVC membrane (fully bonded) using Neofil S10 adhesive to the entire horizontal area or keep it loosely laid (as per the project specs).
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 protection layer over the entire area above the fleece back PVC membrane followed by a minimum of 50mm cementitious screed

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C. Vertical Applications

1. Adhere the fleece back PVC membrane (fully bonded) using Neofil S10 adhesive to the entire vertical area or keep it loosely laid (as per the projects specs).
2. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required. Stagger end laps.
3. Install the protection layer of Geotextile membrane above the PVC membrane over the entire vertical area in full accordance with manufacturer's method statement
4. Secure top termination of waterproofing with continuous, PVC coated aluminium strip, and a suitable PU sealant from Monneli's joint sealant product range.

CI. 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 and are free of voids, fish mouths, or wrinkles using 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

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

1.1 CORNER JOINT INSTALLATION

A. Install corner details in according to waterproofing manufacturer's written instructions.
1. Use the same welding technique as specified for membrane.

Ambient Air Temperature

+5°C - +60°C

Packaging

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

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Storage

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

MonniSeal 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
- MonniSeal 1200 TNL-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.

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