Technical Data

Test Performed	Standard and Requirements	Result
Thickness (mm)	DIN 16938	2.00 mm
Mass	±10%	2.6 kg/m^2
Tensile Strength N/ mm^2 Longitudinal Transversal	DIN 16938 >10.40 N/mm^2 Both direction	≥ 15 N/mm^2
Elongation longitudinal transversal	DIN 16938 DIN 16730 >200% Both directions	>300% both directions
Thermal Stability longitudinal transversal	DIN 16938 6h / 80°C <2	<1.0% both directions
Thermal Ageing	DIN 16938 7d / 80°C change of tensile strength <±20% longitudinal elongation Change of elongation <±20% longitudinal transversal folding in cold at -20°C: no cracks	<10% both directions <10% both directions -30°C, no cracks
Slit Pressure Resistance	SIA 280/4 1h / 5 bars (0.5N/ mm^2) tight	Passed
Roots Resistance	SIA 280/10 No root penetration ingrown root must die off	Passed
Combustibility	SIA 280/11 Class V / smoke class 2	Passed
Water Vapour Diffusion Resistance	DIN 16730 Less than 30,000	Less than 21,000
Water Absorption	SIA 280/12 8 months storage in water <±6% folding in cold at -20°C, no cracks	Passed
Compressive Strength	SIA 280/13 48h / 7N / mm^2 tight	Passed
Puncture Resistance	DIN 16730 Drop hammer 500g, no leak on falling from 750mms	Passed
Seam Strength	SIA 280/15 No peeling or sliding of welded seam	Passed
Cold Bend	DIN 16730 No cracks at -20°C	No cracks at -30°C
Durability of Water Tightness against Chemicals	DIN 16938	Passed
Resistance to Algae & Rot	DIN 16730 No roots penetration	No penetration, growth dies off

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Complementary products:

PVC Coated Aluminium sheet for termination
Geotextile membrane: Armofab
Protection layer
PVC Waterbar: MonniJoint PVC
Re-injectable hose: MonniJoint RHS (optional)
Injection resin: MonniCryl 60
PVC Injection flanges
PU Sealant

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 gunite 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 gunite and fine sprayed concrete must be cleaned (no loose stones, nails, wires, etc.).

Application:

LOOSELY LAID PVC SHEET INSTALLATION

Install loosely laid PVC sheets over entire area so the light colour is at the visible side towards the substrate.

A. Horizontal Installation:

1. Install the Geotextile membrane over the entire horizontal area before the PVC membrane in full accordance with manufacturer'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 protection layer over the entire area above the PVC membrane followed by a minimum of 50mm cementitious screed

B. Vertical Applications:

1. Install the Geotextile membrane over the entire vertical area in full accordance with manufacturer's method statements
2. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required.
3. Install the protection layer of Geotextile membrane above the PVC membrane over the entire area in full accordance with method statement.

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4. Secure top termination of waterproofing with continuous, PVC coated aluminium strip, and a suitable PU sealant as recommended by waterproofing manufacturer.

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

CI. 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.

INJECTION HOSE SYSTEM INSTALLATION

A. General: Comply with manufacturer's printed instructions. The injection system shall be installed by an experienced specialist applicator authorized in writing by manufacturer.

1. Coordinate with the work of "Cast-in-Place Concrete" for installation of injection system components through concrete elements in basements similar to raft slab, vertical walls and columns.

B. Injection system shall be placed in 8-12 meter lengths with entry port and vent ends terminated using butterfly plastic shutter connectors and shall offer the user the option of flushing and re- injection.

C. Shutter connectors shall be placed in vertical elements adjacent to the joint.

D. The system shall be injected at least once, with the re-swellable injection resin, after completion of wall construction.

Ambient Air Temperature
+5°C - +60°C

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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.

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.

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