

# MonniProof PU 100

Elastomeric Single Component Aliphatic Polyurethane Waterproofing Membrane

## Product Description

MonniProof PU 100 is a single component, liquid applied, elastomeric, aliphatic polyurethane based waterproofing coating. It cures with moisture in the atmosphere to produce a highly elastic UV stable seamless membrane with strong adhesion to many types of substrates.

## Uses

MonniProof PU 100 can be successfully applied on tiles, concrete, cement roof tiles, wood and galvanized steel.

The seamless membrane can be used as an impervious waterproof coating on the following:

- ▶ Roofs
- ▶ Sunken slabs
- ▶ Concrete domes
- ▶ Profile sheets
- ▶ Kitchen and bathrooms
- ▶ Balconies and patios
- ▶ Basements
- ▶ Swimming pools and other water retaining structures, bridges and tunnels, etc.

Its particular composition makes it suitable for applications on humid supports and during winter.

## Advantages

- ▶ When applied, forms a seamless membrane without joints or leak possibilities
- ▶ Excellent crack bridging properties
- ▶ Easy application
- ▶ UV Resistant and withstands extreme weather conditions
- ▶ Provides glossy and easy-to-clean surface
- ▶ Offers excellent durability and superior abrasion resistance
- ▶ Repairable and re-coatable
- ▶ High tensile strength and elastic recovery
- ▶ Good resistance to ponded water

## Instructions for Use

### Surface Preparation

The surface of the concrete shall be sound, clean and uncontaminated.

This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base.

Oil, grease, varnishes, rust, dust and mould on metal surfaces shall be removed by wire or stiff brushing and grit blasting then wiped with Monneli SOLVENTE 10 prior to priming.

New concrete or cementitious surfaces should be at least 28 days old and have moisture content not exceeding 5%. Old or existing surface should be refurbished mechanically to ensure clear and sound substrate.

### Crack treatment

Shrinkages and non-moving structural cracks less than 1.0mm shall be filled with a pre-treatment strip of MonniProof PU 100 of 1.0mm thick extended to 75 mm on both sides of the crack. Voids and honeycombs shall be patched with MonniRep F6 or MonniFinish EC products allowing the area to cure before applying the membrane.

### Right angle bends

All right angle bends must have a coving detail installed. In areas where parapet walls, columns, pipe penetrations are present, a 45° coving fillet shall be made at all corners using MonniRep Fiber, a Fiber reinforced shrinkage controlled mortar for concrete repair to the water saturated cured surface.

All other angles, joints, protrusions and stress joints should be pre-treated with a heavy application of MonniProof PU 100 extending 150mm on both sides of the coving.

### Movement Joints

Expansion and movement joints should be sealed with MonniSeal PU, a Polyurethane sealant. When cured a stripped layer MonniProof PU 100, 200mm wide shall be applied and centered over all the sealed joints. Allow to cure before the general application. While the membrane is still wet cover with a correct cut strip of fiber mesh and press it to soak. Saturate the fiber mesh with another coat of MonniProof PU 100 until it is fully covered. Allow curing before applying further coats of the waterproofing membrane.

### Priming

Highly porous concrete or concrete containing micro-silica will be primed using MonniPrime PU a Polyurethane primer. The primer shall be applied at a rate of 5-6m<sup>2</sup>/L. MonniPrime PU should be left to achieve a tack-free condition for 6-8 hours before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

### Mixing

MonniProof PU 100 should be stirred before use until a uniform color and consistency is achieved. Product is ready for use.

### Application

MonniProof PU 100 shall be applied by brush, roller, trowel or airless spray in 2 coats to achieve a minimum dry film thickness of 1.0 mm for each coat. The two coats must be applied at right angles to one another. A layer of fiber glass mesh should be embedded between the two MonniProof PU 100 coats over pipe culverts, floor drains, corner joints and floor/wall junctions. The final wet coat of MonniProof PU 100 shall be spread with sufficient clean silica and before applying tile adhesives. Tiling or finished floor installations should be carried out as soon as possible after full cure of membrane is established.

### Cleaning

Tools and equipment used for MonniProof PU 100 should be cleaned with SOLVENTE 10 directly after use. Hardened or cured material can only be removed mechanically.

### Recommendations

Never apply MonniProof PU 100 on porous surfaces such as blocks, cement boards and lean cement / sand screed without priming the surface first  
For exposed areas such as roofs and external walls, it is highly recommended to apply MonniProof PU 100 at early mornings or evenings when the temperature is low

### Technical Data

Category	Typical Values
Appearance	Liquid
Density at 25°C	1.4 kg/ L
Elongation (ASTM D412)	500 %
Tensile Strength (ASTM D412)	>5 N/mm <sup>2</sup>
Tear Strength (ASTM D412)	>10 N/mm
Modulus of elasticity at 100 % elongation (ASTM D412)	>0.6 N/mm <sup>2</sup>
Crack Bridging (ASTM C1305)	2.5mm
Water vapour transmission (24 hours) (ASTM D2939)	0.3 g/h.m <sup>2</sup>
Shore A Hardness	40 - 50
Initial Cure @ 25°C	24 hours
Full Cure @ 25°C	7 days
Application Temperature	+5°C to +35°C
Service Temperature:	-10°C to +80°C

All values are subject to 5-10% tolerance

## Consumption

0.8m<sup>2</sup>/Liter at 1mm thick depending on the porosity of the substrate

## Packaging

MonniProof PU 100 is packed in 4 and 15 Liter Cans

## Shelf Life & Storage

Keep the product in dry and sheltered place at temperature between +5°C and +25°C. In these conditions and in closed original containers, the product will have a shelf life of 12 months.

## Health & Safety

Wear gloves, goggles to avoid any contact with eyes and skin. In case of splashes in the eyes, wash abundantly with warm water and consult a doctor. Ensure adequate ventilation at working place. If swallowed, seek medical attention immediately.

## Legal disclaimer

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