

PENTENS PU-1000

Polyurethane Based Waterproofing Membrane

Product Data Sheet

Description

PENTENS PU-1000 is a single component polyurethane-based liquid-applied waterproofing membrane. It cures by reacting with atmospheric moisture to form a tough elastomeric seamless waterproofing membrane. It is formulated for use on horizontal and vertical surfaces.

Uses

To provide a continuous, seamless, water and vapour proof membrane for concrete. Areas of application include:

- Floor slabs
- Suspended floors
- Terraces and balconies
- Inspection pits
- Patios
- Bathrooms
- RC gutters and planter boxes
- Swimming pools
- Tunnels
- Water tanks
- Basements and foundations
- Retaining walls

Advantages

- Easy application, apply directly from container.
- High elasticity and flexibility.
- Superb adhesive strength.
- No priming required, ready for immediate use.
- The softening point will not be further softened by the hot and humid climate in tropical countries.
- Resistant to any bubbling or side osmosis.
- Unaffected even submerge in water for a long time.
- Capable of re-application.
- Non-toxic.
- Seamless & single layer application possible.

Technical & Physical Data

Form	Liquid
Colour	Black
Tensile Strength (kgf/cm ²) (ASTM D 412-98)	1.80
Elongation at Break (%) (ASTM D 412-98)	600- 800
Tensile Strength at 100% Elongation (kg/cm ²) (ASTM D 412-98)	3.5
Tear Strength (kgf/cm ²) (CNS 6986, CNS 6988)	11
100% Modulus of Elasticity (kgf/cm ²) (CNS 6986, CNS 6988)	5.5
Water Vapour Transmission (g/m ² /d) (ASTM E96)	9
Puncture (kgf) (ASTM E154)	1.6
Chemical Resistance (10% HCOOH, 60°C, 24 hrs)	No changes in the surface of the sample
Water Absorption Test BS 1881 Part 122:1983	< 1%
Storage Condition	Store in a dry, cool place
Packaging	20kg /pail 200kg /drum

Important Notes

1. Minimum ambient and substrate temperature is 5°C.
2. Never apply more than 1 kg/m² of PENTENS PU-1000 in one single layer.
3. Apply only to clean and sound substrates. Surfaces should be well-dampened but free from water and leakages.

Instruction for Use

Substrate preparation

All surfaces must be clean, free from grease, oil, laitance, dirt and contaminants which might affect adhesion.

Any cracks or water leakage areas should be pre-treated and reinforced with PENTENS Repair System (for more details, please refer to PENTENS Technical Department) before the waterproofing application.

For some difficult areas, such as the position of cracks, secondary joint, right angle of wall and the boundary of water jacket, the surface shall be strengthened first with one layer of PENTENS PU-1000.

Mixing

Mixing is generally not required but for smoother application, not more than 1kg of clean water can be added into 20kg of PENTENS PU-1000.

Coverage

1kg/m²/coat

Application

Pentens PU-1000 can be applied by brush, squeegee, roller or airless spray. Full details of suitable spraying equipment can be supplied on request.

PENTENS PU-1000 should be applied in minimum of 2 coats. The time interval between coats shall be 4-8 hours at 25°C. Make sure that the first layer of waterproofing is dry and formed as membrane before applying subsequent layers.

For more details, please refer to PENTENS Technical Department.

Curing

For optimum performance, PENTENS PU-1000 should be allowed to cure for 24 hours before applying the finishing concrete, tiles etc. During this time, precautions must be taken in order to prevent damage to the coating.

Cleaning

Tools and equipment can be cleaned with solvent immediately after use.

Safety

Impervious gloves and barrier cream should be used when handling these products. Eye protection should be worn. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice if symptoms persist. If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin cleanser followed by plenty of soap and water. Do not use solvent. Ensure adequate ventilation when using these products.