

PENTENS T-100

Water-Based PU Bituminous Waterproofing Membrane

Product Data Sheet



Description

PENTENS T-100 is a single component which is newly developed polymer of MMA, natural rubber, and polyurethane combines with the reaction with asphalt and then being modified and further emulsified to form elastic waterproof membrane. PENTENS T-100 is environmentally friendly and Low VOC material.

Uses

To provide a better water and vapor proof in complicating application surface compare to membrane-type and ensure better integrity between applied surfaces and waterproofing coating. Areas of application include:

- Concealed RC flat roof
- Suspended floors
- Terraces and balconies
- Patios
- Bathrooms
- RC gutters and planter boxes
- Swimming pools and water features
- Basements and foundation
- Retaining walls
- Landscape area
- Driveway

Advantages

- Low VOC
- Environmentally Friendly
- High elasticity.
- Will bond to most surface
- Resists to wide range of acids and alkalis.
- Can be applied directly on damp or wet surfaces.
- Odorless and produces no fumes
- Non-toxic.

Technical & Physical Data

Foam	Liquid
Color	Black Coffee
Solid Content (%) (SS 133:1987 Appendix D)	73.90
Shore A Hardness (ASTM D2240:2005)	57
Crack Bridging (ASTM C 835:00)	2mm
Tensile Strength (N/mm ²) (ASTM D 412-98)	3.1
Elongation at break (%) (ASTM D 412-98)	1128.6%
Tear Strength (kgf/cm ²) (CNS 6986, CNS 6988)	14.7
Water Penetration (DIN 1048 Part 5:1991)	0
Water Vapour Transmission of Materials (ASTM E96/ E96M:2005)	18g/m ² /24 hrs
Puncture (kgf) (ASTM E154)	19
Chemical Resistance (10% HCOOH, 60°C, 24 hrs)	No changes on the surface of the sample
Shelf Life	1 year when unopened and undamaged
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 T-100 in one single layer.
3. Apply only to clean, sound substrates where surfaces should be well dampened but free of surface water and leaks.
4. **Thoroughly agitate contents before use.**

Disclaimer. All representations and recommendations set forth are given in good faith and to the best of our knowledge. However due to varying conditions and applications, the buyer shall conduct its own tests of this product before use. Under no circumstances will the manufacturer be liable for any loss or damages caused by incorrect usages. The sale of this product shall be on terms and conditions set forth on Pentens order acknowledgement.

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Green Label Test Data

Heavy Metals:

(EPA 3025 / EPA 6010B: ICP)

a. Cadmium (Cd)	Not Detected
b. Lead (Pb)	Not Detected
c. Total Chromium (Cr)	Not Detected
d. Mercury (Hg)	Not Detected

Volatile Organic Compounds

(ISO 11890-2) (g/L) 0.53

Total Halogenated Organic Solvent

(ISO 11890-2) (%) Not Detected

Total Aromatic Organic Solvent

(ISO 11890-2) (%) Not Detected

Epichlorohydrin

(ISO 11890-2) (%) Not Detected

N-Methyl Pyrrolidinone

(ISO 11890-2) (%) Not Detected

Formaldehyde

(High Performance Liquid Chromatography) (%) Not Detected

Alkyl Phenol Ethoxylate

(LCMS-MS) (%) Not Detected

Flash Point

(ASTM D3828-07a) (°C) >61

Instruction for Use

Surface Preparation

All the surfaces must be clean, free from grease, oil, laitance, and remove all the dirt and contaminants, which might affect adhesion. The impurity outside the structure body should be cleaned thoroughly.

Any crack or water leakage area should be pre-treated and reinforced with PENTENS repair system (for more details, please refer to our Technical Department prior waterproofing application.)

Mixing

Generally is not required but for smoother application, not more than 1kg of clean water can be added into 20kg of PENTENS T-100

Application

Dilute 1 portion of PENTENS T-007 permeable primer or 1 portion of PENTENS T-100 with 3 portion of clear water and then plaster directly to the surface to be waterproofed at the rate of 0.2kg/m², in order to improve the bonding.

With brush, roller, or spray method apply the first coat of PENTENS T-100 on the application surface. Leave to cure for approximately 8 hours before applying second coat.

Consumption

Standard coating system:

PENTENS T-100 applied in minimum two coats (exclude primer)

1 x coat of PENTENS T-007 at 0.2kg/m²

2 x coats of PENTENS T-100 at 0.75kg/m²/coat

Water retaining structure coating system:

PENTENS T-100 applied in minimum three coats (exclude primer)

1 x coat of PENTENS T-007 at 0.2kg/m²

3 x coats of PENTENS T-100 at 0.75kg/m²/coat

Reinforced coating system:

PENTENS T-100 applied in minimum three coats (exclude primer), reinforced with a layer of Pentens ACW-015 fiberglass mesh

1 x coat of PENTENS T-007 at 0.2kg/m²

1 x coat of PENTENS T-100 at 0.75kg/m²

Pentens ACW-015 fiberglass mesh

1 x coat of PENTENS T-100 at 0.75kg/m²

Note:

1. PENTENS T-100 should be applied in minimum 2 coats.
2. Primer is required for better bonding.

Curing

For optimum performance, PENTENS T-100 should be allowed to cure for 12 hours before the finishing concrete, tiles etc. and during this time precautions must be taken to prevent damaging to the coating.

Note

The best method to assure good penetration of the first coat into the surface is by application with a nap roller. The succeeding coats may be spray or roller applied.

Cleaning

Tools and equipment just can be clean with clean water 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, wash thoroughly with plenty of water and seek for medical advice if symptoms persist. If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin clearer followed by plenty of soap and water. Do not use solvent. Ensure adequate ventilation when using these products.