

PENTENS T-300

Soft Resin Mortar for Waterproofing

Product Data Sheet



Description

PENTENS T-300 is formed by PENTENS T-300B, a mixture of Portland cement, quartz sand and other chemical ingredients along with PENTENS T-300A, a special synthetic rubber emulsion.

When these two components are mixed together, they form a homogeneous mortar. Such synthetic rubber emulsion will then react with calcium ion contained in Portland cement to help eliminate the capillary phenomena caused by the voids in cement and achieve the purpose of waterproofing. PENTENS T-300 is an environmentally friendly and low VOC material.

Uses

- Floor slabs
- Suspended floors
- Terraces and balconies
- Patios
- Bathrooms
- RC gutters
- Internal walls
- Swimming pools
- Water tanks
- Retaining walls

Advantages

- Low VOC.
- Environmentally friendly.
- Strong adhesive strength.
- Good elasticity and can be used with fiberglass mesh to enhance the crack-resistant effect.
- Comes with superior chemical resistance.
- Comes with good wear resistance.
- Ultimate resistance to the reaction of carbonation.
- Permeable to water vapor.
- Ultimate weather resistance.
- Provide better water resistance compared to membrane type and ensure better integrity between applied surfaces and waterproofing.

Technical & Physical Data

Tensile Strength (kgf/cm ²) (ASTM D412 (Die C))	16
Elongation (%) (ASTM D412 (Die C))	143
Tear Strength (kgf/cm ²) (ASTM D624)	16
Hardness (Shore A) (ASTM D2240)	>3
100% Modulus of Elasticity (kgf/cm ²) (ASTM D412 (Die C))	13.5
Shear Strength (kgf/cm ²) (ASTM D1002)	7
Water Vapor Transmission	
i. WVT (g/hxm ²) (23°C, 50%) (ASTM E96)	1.37
ii. Permeance (g/sxm ² xPa) – Method B	1.98 x 10 ⁻⁵
Abrasive Test (g) – Taber CS-17, 1000g, 1000 Cycles (ASTM C501)	0.043
Puncture (kgf)	9
Pot Life	30min at 30°C and shortened at higher temperature
Shelf Life	1 year when unopened and undamaged
Storage Condition	Store in a dry, cool place
Packaging	
■ T-300A:	20kg /pail
■ T-300B:	25kg /bag

Important Notes

The material must be stored indoor to avoid being exposed to direct sunlight, wind or rain and kept away from fire or smoke.

Green Label Test Data

Heavy Metals:

(EPA 3025 / EPA 6010B : ICP)

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

Volatile Organic Compounds
(ISO 11890-2) (g/L) 1.37

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 surfaces, joints between slabs and walls must be clean, free from grease, oil and laitance. Remove all dirt and contaminants which might affect adhesion. Any cracks and water leakages should be pre-treated and reinforced before the application.

Mixing

Add PENTENS T-300B (25kg powder) gradually to the PENTENS T-300A (20kg resin) and mix thoroughly with cement compound until they blend completely. Use the mixture within 30 minutes.

Consumption

Standard Coating System

PENTENS T-300 should be applied in a minimum of two coats (exclude primer)

1 x coat of PENTENS T-007 at 0.2kg/m²

2 x coats of PENTENS T-300 at 1.0kg/m²/coat

Water Retaining Structure Coating System:

PENTENS T-300 is recommended to be applied in three coats (exclude primer)

1 x coat of PENTENS T-007 at 0.2kg/m²

3 x coats of PENTENS T-300 at 1.0kg/m²/coat

NOTE:

- PENTENS T-300 must be applied in a minimum of 2 coats.
- More coats may be required in high infiltration areas.

Application

Dilute 1 portion of PENTENS T-007 permeable primer or 1 portion of PENTENS T-300 with 3 portions of clean water and then plaster it directly to the surface to be waterproofed in order to improve the bonding.

Apply or plaster the first and the subsequent coat of PENTENS T-300 to the construction surface by using brush, roller or spray. The time interval between plastering shall be 4 ~ 8 hours. Ensure that the first layer is properly dry and formed as membrane before applying subsequent layer.

Over Coating

After the primer, PENTENS T-300 can be applied directly onto areas which are exposed to hot drying winds. For indoor areas, it is recommended to be applied approximately 30 minutes after the application of primer.

Curing

For optimum performance, PENTENS T-300 should be allowed to cure for 24 hours before applying the finishing concrete, tiles etc. During this time, precautions must be taken to prevent damage to the coating.

Cleaning

Tools and equipment can be easily cleaned immediately after use. Hardened material can only be mechanically removed.

Safety

As cement is alkaline and may cause irritation, wear gloves and goggles when using PENTENS T-300. In case of contact with eyes, rinse immediately with clean water and seek medical advice if symptoms persist.