

PENTENS T-305

Cementitious Waterproofing Coating

Product Data Sheet

Description

PENTENS T-305 is a cement-based waterproofing coating which incorporates two polymer components. It is applied directly to concrete and mortar to prevent water infiltration.

Uses

PENTENS T-305 can be used for positive and negative side waterproofing, sealing of hair line cracks and as a protective coating against aggressive chemicals such as carbon dioxide (eg. in concrete repair work), frost and de-icing agents. The areas of application include:

- Potable water tanks
- Terraces and balconies
- RC gutters
- Bathroom floors and walls
- Basements
- Retaining walls

Advantages

- Low VOC.
- Environmentally friendly.
- Pre-batched and ready for use.
- Mixes and applies easily.
- High workability.
- Good adhesion to sound substrates.
- Impermeable.
- Increased frost and salt resistance.
- Resist carbon dioxide penetration.
- Non-toxic.

Technical & Physical Data

Tensile Strength (kgf/cm ²) (ASTM D412 -98a)	22.9
Elongation (%) (ASTM D412 (Die C))	24.30
Tear Strength (kgf/cm) (ASTM D624)	7.2
Hardness (Shore A) (ASTM D2240)	54
Pull-off Strength (psi) (ASTM D4541)	306
Water Absorption (%) (BS 1881-122:1983)	0.42
Water Vapor Transmission of Material (ASTM E96)	1.9 g/h.m ²
Abrasive Test (g) – Taber CS-17, 500g, 10000 Cycles (ASTM D4060-01)	1.0021
Puncture (kgf)	9
Compressive Strength @ 28 days (n/mm ²)(n/mm ²) (ASTM E154)	>40
Pot Life	30 min at 30°C and will be shortened at higher temperatures
Shelf Life	6 months when unopened
Storage Condition	Store in a dry, cool place
Packaging	
■ T-305A	5kg /pail
■ T-305B	25kg /bag

Important Notes

1. Minimum ambient and substrate temperature is 5°C.
2. Never apply more than 1 kg/m² of PENTENS T-305 in one single layer.
3. Apply to only clean and sound substrates. Surfaces should be well damped but free from surface water and leakages.

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	0.63
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(ISO 11890-2) (g/L)

Total Halogenated Organic Solvent	Not Detected
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(ISO 11890-2) (%)

Total Aromatic Organic Solvent	Not Detected
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(ISO 11890-2) (%)

Epichlorohydrin	Not Detected
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(ISO 11890-2) (%)

N-Methyl Pyrrolidinone	Not Detected
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(ISO 11890-2) (%)

Formaldehyde	Not Detected
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(High Performance Liquid Chromatography) (%)

Alkyl Phenol Ethoxylate	Not Detected
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(LCMS-MS) (%)

Flash Point	> 61
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(ASTM D3828-07a) (°C)

Instruction for Use

Surface Preparation

Surfaces must be clean, free from grease, oil and loose adhering particles. All surfaces must be as flat and level as possible.

Absorbent surfaces have to be thoroughly saturated with water prior to applying the first coat of PENTENS T-305. However, no loose standing water should be on the surface before application.

Mixing

Under normal circumstances, mixing the full quantities of both components together will result in a consistent mortar. Mixing shall be carried out in a clean container by gradually adding the powder component to the liquid component and stirring with a slow-speed mixer. Use mixture within 30 minutes. 1 set of PENTENS T-305 can be added with 4kg of water for smooth application.

Consumption

Standard coating system – PENTENS T-305 applied in minimum of two coats (exclude primer)

1 x coat of PENTENS T-007 at 0.2kg/m²

2 x coats of PENTENS T-305 at 1.0 kg/m²/coat

Water retaining structure coating system – PENTENS T-305 applied in minimum of three coats (exclude primer)

1 x coat of PENTENS T-007 at 0.2kg/m²

3 x coats of PENTENS T-305 at 1.0 kg/m²/ coat

Application

Dilute 1 portion of PENTENS T-007 permeable primer with 3 portions of clean water and apply directly onto the surface in order to improve the bonding.

Apply PENTENS T-305 to construction surface by brush, roller or spray. The time interval between coats shall be 4-8 hours. Make sure that the first layer of waterproofing is dry and formed as membrane before applying subsequent layer.

Over Coating

After the primer, PENTENS T-305 can be applied directly for areas exposed to hot drying winds. For indoor areas, allow approximately 30 minutes after the primer before applying PENTENS T-305.

Curing

For optimum performance, PENTENS T-305 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 easily cleaned with water 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-305. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice if symptoms persist.