PENTENS E-620

Water-based Epoxy Coating

Product Data Sheet

Description

PENTENS E-620 is a two-component water-based epoxy floor coating system which consists of modified phenol-type epoxy resin (A-Comp.) and water-emulsified epoxy resin hardener (B-Comp.). This system is formulated using water as a carrier and produced a hard film with outstanding matte appearance.

PENTENS E-620 is safe for use in sensitive areas. It is environmentally friendly with extremely low VOC content. PENTENS E-620 has potable water approval from SPAN and conforms to ASTM E96 (W.V.T.). It makes an ideal moisture barrier for water tanks, reservoirs, swimming pools and storage tanks.

Uses

- Food industries or factories
- Clean rooms
- Assembling plants
- Storage and logistic areas
- Chemical and pharmaceutical industries
- Institutional areas

Advantages

- Environmentally friendly.
- Cured membrane can withstand high levels of hydrostatic pressure up to 250kPa meter head of water.
- Excellent wear and impact resistant properties.
- Impervious to liquids and excellent resistance against chemicals.
- Can be applied on damp surfaces.
- Can be safely applied to freshly laid hardened (green) concrete.
- Non-flammable, negligible odor and toxicity.
- Excellent adhesion to most substrates including brick, masonry, concrete, compressed fiberboard, stone and timber.
- Easy clean-up using water.

Technical & Physical Data

Form	Liquid
Appearance	Matte
Pot Life	45-60 minutes @ 25°C
Re-coat Time	2 hours @ 25°C and 50% RH
Water Vapour Barrier Permeance	0.12g/24 hrs/M²mmhg @ 32°C and 50% RH
Application of Adhesive/Coverings	24 hours @ 25°C and 50% RH
Full Cure	5-7 days @ 25°C and 50% RH
Specific Gravity (mixed)	Approx. 1.25 @ 25°C and 50% RH
Dry Film Thickness	300 µm (microns)
Shelf Life	1 year when unopened and undamaged
Storage	Store between 10°C to 30°C away from direct sunlight
Packaging	
■ E-620A	20kg /pail
■ E-620B	2kg /pail

Chemical Resistance

Hydrochloric Acid-10%	20°C, 60 days	No deterioration
Saturated Sodium Chloride Solution	20°C, 60 days	No deterioration
Acetic Acid-20%	20°C, 60 days	No deterioration
Sodium Hydroxide-30%	20°C, 60 days	No deterioration
Ethyl alcohol/ water =60/40	20°C, 60 days	No deterioration
Household Detergent	20°C, 60 days	No deterioration
Styrene	20°C, 60 days	No deterioration
Saturated Cement Solution	20°C, 60 days	No deterioration
HCOOH-10%	20°C, 60 days	No deterioration

Instruction for Use

Surface Preparation

All surfaces to be treated must be structurally sound and all previous coatings, adhesives, efflorescence or laitance should be removed by chipping, abrasive blast cleaning, high pressure water washing, mechanical scrubbing or other suitable means. All surfaces must be clean, free from dirt, grease, oil or other surface contaminants.

Holes, non-structural cracks or other surface deformities should be primed with PENTENS E-620, thinned at a dilution rate of 10% with water and filled with a mortar prepared from 1 part cement, 1 part fine sand and 1 part PENTENS E-620. After that, allow to cure for 2-3 hours at 25°C.
(Note: Pot life is reduced when mixed with cement).

Very dry and highly porous surfaces should be sprayed with a fine mist of water prior to the application of PENTENS E-620.

Mixing

Each component should be individually mixed to form homogeneous components prior to mixing. Thoroughly mix the two components using a mechanically forced action mixer with a high shear stirrer until a homogeneous paste is obtained.

Mix only the required amount within the pot life of the product and avoid excessive aeration during mixing. Discard any material which has exceeded the pot life or working time of the product.

Application

Individually re-stir each component of PENTENS E-10 prior to mixing. Mix PENTENS E-10 A/B to form a homogenous component and apply as primer to the substrate at 0.2kg/m².

Spread PENTENS E-620 using a roller, brush, trowel or stiff nylon broom to achieve a smooth coverage and finish. Apply the second coat after the first coat has dried (typically 6 to 8 hours). The time will depend on the type of surface and the ambient conditions. Spray application is also acceptable provided uniform thickness coverage is achieved. Care must be taken to fill voids and avoid pin holing.

A minimum of two coats at 0.3kg/m² is recommended to achieve an approximate dry film thickness of theoretically 300µm (microns). Coverage depends on surface porosity and substrate conditions. Care should be taken to ensure the material is uniformly applied at the required coverage rates.

For more details, please refer to PENTENS Technical Department.

Cleaning

PENTENS E-620 should be removed from tools and equipment with thinner immediately after use. Hardened material can only be removed mechanically.

Limitations

PENTENS E-620 should not be applied onto surfaces known likely to suffer from:

- Temperatures below 5°C.
- Rising dampness.
- Very heavy traffic such as sound work benches, drink machines etc.

Safety

PENTENS E-620 should not come in contact with skin and eyes or be swallowed. Ensure adequate ventilation and avoid inhaling the vapors. The smell may cause irritation to people who are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier cream provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, before cleansing with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical advice immediately – do not induce vomiting.