

Estotect N 905

High Chemical Resistant protective lining

Description

Estotect N 905 is a solvent free, two components, highly build novolac epoxy-based coating for high chemical resistant protective lining. It was designed to protect concrete and steel structures from aggressive chemical attack.

The material is suitable for wastewater treatment plants, chemical storage, which contain high chemical reaction. It is formulated to be applied in one or two coats to achieve a minimum total-dry film thickness of 500 microns as top coating. It may also be used in conjunction with glass fiberglass to reinforce structures subjected to aggressive chemicals and increase the thickness and strength of the system.

Uses

Estotect N 905 is suitable for condition requiring the chemical resistance, such as:

- Chemical Storages or Plants
- Pulp and Paper Mills
- Waste Water Treatment Plants
- Fertilizer and Insecticide Plan
- Protection of Discharge Tanks Chemical Liquid Products
- Re-surface in Areas Subjected to Chemical Spillages

Features

- Easy to be applied, can be applied by brush, roll or spray.
- Solvent free.
- Low odor.
- Excellent chemical resistant.
- Excellent adhesion to concrete, steel and other substrates.
- Excellent abrasion resistant.
- Can be installed as standing alone or top coat for flooring system.

Typical Properties

Items	Specifications
Appearance	Liquid
Colour	Natural Grey, Gloss
Density, kg/m ³	1.35 ± 0.05
Solid Content, %	100
Pot Life	45 min. @25°C 20 min. @35°C
Tack-free Time	4 hours @25°C 2 hours @35°C
Overcoating Time	< 16 hours @25°C < 10 hours @35°C
Full Cure	7 days @35°C
Tensile Strength, N/mm ² (ASTM D638)	Up to 30
Flexural Strength, N/mm ² (BS6319)	Up to 30
Compressive Strength, N/mm ² (BS6319)	>80
Hardness (ASTM D2240)	> 70 Shore D
Service Temperature, °C	< 60

Chemical Resistance

The fully cured coating is resistant to the splash/spillage of the following chemicals.

Acetic Acid 25%	Hydrochloric acid 35%
Ammonium Hydroxide *	Hydrofluoric acid 25%
Benzene	Jet fuel
Benzoyl chloride	Isopropanol
Benzyl alcohol	Ethylene glycol monoethyl ether
Bleach (Sodium hypochlorite)	Kerosene
Boric Acid *	Lactic acid 20%
Brake Fluid	Methyl isobutyl ketone
Brine 10%	Mineral spirit
Car oil	Nicotinic acid *
Carbon tetrachloride	Nitric acid 30%
Castor Oil	Phenol 50% in IPA
Deionised water	Phosphoric acid 85%
Diesel fuel	Potassium hydroxide *
Diethanolamine 88%	Propylene glycol
Ethylene glycol	Sea water
Hydrogen peroxide 20% sol	Skydrol
Fatty acids	Sodium hydroxide *
Formaldehyde 37%	Sulphuric acid *
Gasoline	Tartaric acid 50%
Sewage	Citric acid 50%
Hexamine 25%	Toulene
Hexane	Vegetable oils
Hydroaine 35%	Xylene

Surface Preparation

1. All surfaces must be at least 28 days old and have a moisture content of less than 4%.
2. Clean the concrete surface from dirt, oil, grease, loose material, dust and other impurities that can reduce the adhesion of **Estotect N 905** to the surface of the concrete gap to be applied by spraying dry air from the compressor.
3. All blow holes and imperfections should be repair first with epoxy product repair.

Priming

Estotect N 905 is designed to be used without primer.

Mixing

Pour all component B into component A. Mix the two components with a mixer on low speed for 3 minutes or until a uniform color is obtained. It is recommended that mechanical mixing be employed using a slow speed electric drill.

Placing

1. After mixing, apply **Estotect N 905** immediately to the prepared surface ensuring a continuous coating of uniform thickness is obtained.
2. Using stiff nylon brush or short nap roller is recommended for such application. Faster rate of application is possible using airless spray equipment.
3. Apply the second coat within the specified over-coating time.
4. **Estotect N 905** may be used in conjunction with glass fibre cloth to increase the thickness of the system or where necessary bridge fine cracks in the substrate. The cloth should be laid directly on the first coat whilst wet and should be pressed in and smoothed out with a split washer roller. A second coat should then be applied with the specified over-coating time.

Packaging

Estotect N 905 (Part A)	: 3.6 kg
Estotect N 905 (Part B)	: 1.4 kg
Estotect N 905 (1 set)	: 5 kg set

Coverage Rate

Each set of **Estotect N 905** will cover approximately 0.5 Litre/ m² @500 microns. Coverage rate is calculated based on a smooth surface and may vary based on the substrate roughness and other conditions.

Cleaning

Before hardening/ drying, immediately clean the tool and equipment with thinner or proper solvent.

Storage

Store in a dry place away from direct sunlight with temperatures between 25 °C - 30 °C.

Limitations

1. Do not apply on concrete surface with moisture content > 4%.
2. **Estotect N905** should not be applied on to surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Hammond concrete/mortar moisture tester type COCO.
3. Application should not be undertaken if the temperature is below 5°C, or is 5°C and falling, nor when the prevailing relative humidity exceeds 90%.
4. **Estotect N 905** may not be colour stable when in contact with some chemicals or direct sunlight. The colour change will not affect the performance of the protective system either on concrete or steel.
5. Does not apply to closing the expansion joint cavity (expansion joint).

Important Note

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Shelf Life

Estotect N 905 has a shelf life of 12 months if it is still stored in sealed package and stored in a dry place and not exposed to sunlight.

Safety Precautions

Component A can irritate skin and eyes and component B is corrosive and can cause serious burns. The use of gloves and protective eyewear is a **MUST** when using this product. We also recommend working in a well-ventilated area. If ventilation is inadequate, use a face mask with a filter. In case of product contact with eyes or skin, immediately rinse with as much clean water as possible and seek medical advice immediately. Components A and B are also harmful to aquatic life. Do not dispose of the product into the environment. When the product reacts, it generates a fairly high heat. After mixing components A and B, we recommend applying the product as soon as possible and not leaving the container unattended until it is completely empty.

For more information, see the Safety Data Sheet.

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