

Shieldprotect PE300

Pitch-extended Epoxy Coating



Description

Shieldprotect PE300 is a two-component, solvent-free pitch-extended epoxy coating that provides a high build coating to protect concrete and steel from chemical attacks. It also provides an outstanding resistance to water, chemicals, and corrosion, making it ideal for marine applications.

Uses

- Sewage and wastewater treatment plants & tanks.
- Underground and submerged concrete and steel installations.
- Concrete structures' waterproofing.
- Protecting tanks and pipelines from corrosion.
- Retaining walls and tunnels.

Characteristics / Advantages

- Abrasion and corrosion resistant.
- Easy to apply by brush, roller, or spray.
- Durable and chemical resistant.
- Resistant to water, moisture, acids, and sewage.
- Excellent adhesion to concrete and metal.
- Can be applied on damp surfaces.

Standard Compliance

ASTM C881, Type III, Grade 2, Class C.

Packaging

Shieldprotect PE300 is supplied in 15-kg drums.

Shelf Life and Storage

Shieldprotect PE300 has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Typical Properties

Appearance / Color	Black Liquid
Solid Content	100%
Mixed Density (23 °C)	1.65 ± 0.05 g/ml
Pot Life	60 minutes (23 °C) 25 – 30 minutes (40 °C)
Wet Film Thickness	150 microns per coat
Touch Dry	4 hours (23 °C)
Overcoating Time (23°C)	12 hours
Full Cure (23°C)	5 – 7 days
Taber Abrasion (ASTM D4060) CS17, 1000 g, 1000 cycles	≤ 20 mg @ 7 days
Adhesion Strength (ASTM D4541)	≥ 1.5 MPa @ 7 days Concrete Failure
Slant Shear (ASTM C882)	≥ 10 MPa

Application Instructions

1. Surface Preparation

Concrete substrates must be free from dust, grease, loose materials, surface contamination, and any materials that may reduce bond between the coating and the substrate, should be 28 days old, with a relative humidity of less than 80%. Surface defects such as cracks, blowholes, and voids must be repaired with **Shieldrep ER60**.

Steel substrates should be clean and free from rust, and grit blasted to achieve SA 2^{1/2}.

2. Mixing

Components A and **B** should be stirred separately before being mixed to eliminate any case of settlement.

Component B (hardener pack) should be added to **Component A** (base pack) and mixed using a low-speed mixing drill for 3 minutes while reaching the walls and bottom of the container until a homogeneous and consistent material is obtained.

Avoid mixing too vigorously to eliminate introducing air bubbles. Once mixed, the material should be used within its specific pot life.

3. Application

Shieldprotect PE300 is applied immediately onto the prepared substrate. Apply the first coat at 150 microns WFT evenly using a shorthair brush, roller, or airless sprayer and allow to dry before overcoating.

A second coat can be applied once the first coat has achieved a tack-free condition (within the overcoating time). If the overcoating time exceeded its acceptable range, scrape the first coat and wipe using a suitable solvent before applying the second coat.

4. Cleaning

Clean the tools and any uncured material using a suitable solvent. Hardened material should be removed mechanically.

Coverage

24 m² per 15 kg kit @ 300 microns (two coats)

The coverage rate is given for guidance only. The actual rate depends on substrate porosity and roughness.

Safety Instructions

The application should be done in a well-ventilated area with adequate air circulation, away from any heat source, and ensure having gloves, eye protection, masks, and protective clothing.

Avoid contact with the eyes and skin. In case of direct contact with the skin, wash the affected area immediately with water for several minutes. If it comes into contact with the eyes, rinse immediately with lukewarm water for at least 15 minutes and get medical advice or treatment if any emergency warning signs appear. Dispose of any leftover epoxy and waste materials according to local regulations. For further information, refer to the Material Safety Data Sheet.

Technical Support

Refer to technical information, method statement, or technical support team for any inquiry.

Address: Manaseer Group, 8th Circle, King Abdullah II St. 302
P.O. Box 925988 Amman, 11110, Jordan

Phone +962 6 5800600
Fax. +962 6 5833890

Email: info.shield@manaseer-ic.com
Website: www.manaseergroup.com

LEGAL DISCLAIMER: All information provided, and recommendations made herein are intended to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use in order to make their own final decision regarding suitability. We do not guarantee results, freedom from patent infringement, or suitability of resultant products for any suggested application with respect to the use of any formula or material described herein.

Version 250518 SP-AF-PE300-001