

SMARTCARE EPT

GROUT AND ANCHORING SYSTEM

High performance epoxy pile top resin bedding grout and mortar.

PRODUCT DESCRIPTION

SmartCare EPT is a three-component, solvent-free epoxy resin system designed for pile head encapsulation and waterproofing. It forms a fully bonded, watertight seal by preventing seepage through cracks and capillaries in the pile head, ensuring proper transmission of static and dynamic loads to the foundation. Its exceptional impermeability makes it ideal for pile cap waterproofing applications.

KEY FEATURES

- **High Strength and Adhesion:** High compressive strength and adhesion to substrate ensures excellent performance.
- **User-Friendly Application:** The product offers ease of mixing and application for the user.
- **Chemical and Groundwater Resistance:** It provides excellent resistance to chemicals, acids, alkalis, and ground water.
- **Durability and Wear Resistance:** The material features excellent impact and abrasion resistance.
- **Rapid Performance Development:** It is characterized by early strength development.
- **Waterproofing Membrane Compatibility:** The product is compatible with self-adhesive or torch applied bitumen based waterproofing membranes.
- **Seepage Prevention:** It prevents water seepage either through capillaries or along the reinforcement path.
- **Enhanced Mechanical Properties:** It contains specially graded aggregates and additives to provide excellent mechanical properties.

PRODUCT BENEFITS

-  High Structural Integrity
-  Fast-Track Completion
-  Effortless Installation
-  Extreme Wear Protection

PACKAGING

15 Liter sets (Weight 30kg)

TECHNICAL PROPERTIES

Properties	Value
Colour	Grey
Mixed density (ASTM D 1475)	2.1 ± 0.05 kg/L
Pot life	60 minutes
Compressive strength @7 days (ASTM C 109 /C 109M-21)	> 80 N/mm ²
Flexural strength @7 days (ASTM C 196-1)	> 20 N/mm ²
Tensile strength @7 days (ASTM C 307)	> 10 N/mm ²
Adhesion strength @7 days (BS 1881 ASTM D 4541)	> 2.5 N/mm ²
Rapid chloride permeability (ASTM C 1202)	Nil
Water permeability @5 bar (BS EN 12390)	Nil

Properties	Value
Chemical resistance	Ph. 2.5 to 11.5 Sea water hydrocarbon fuels
Application thickness	Minimum - 10mm Maximum - 80mm
Application temperature	5 to 40°C
Service temperature	5 to 70°C

*All values given are subject to 5-10% tolerance.

APPLICATION AREAS

- Pile head encapsulation for complete water tightness.
- Bridge bearing pads.
- Anchoring of crane rails, towers, and dock sills
- Anchoring bolts and re-bars (15 mm – 60 mm dia.) in concrete, brickwork, masonry, and rock.
- Installation of reinforced concrete starter bars, foundation bolts, and railway tracks.

APPLICATION METHOD

1. Surface Preparation:

- Surfaces shall be structurally sound and clean of all contaminants like mould release agent, curing compound, grease, paint and cement laitance. The area shall be dry and free of standing water. Surface cleaning by suitable means is recommended depending on the degree of contamination. A watertight shutter shall be erected all around the area where Smartcare EPT shall be poured.
- Any gaps or openings below the formwork or on joints shall be sealed with a suitable mastic sealant or a rubber seal.

2. Caution:

Resin leakage from the grout will result in segregation. The formwork shall be coated with a heavy-duty mould release oil to ensure easy de-shuttering.

3. Mixing:

Mix Part A and Part B separately for a minute using a slow-speed drill (300 - 400 rpm) fitted to a suitable paddle mixer. Then add part B into part A and mix thoroughly for 1-2 minutes. Add part C aggregates slowly into the mix and further mix for another 3-4 minutes till a uniform and homogenous consistency is achieved.

Note: All parts are pre-weighed, and no part mixing is allowed.

4. Placing:

Pour the mixed Smartcare EPT immediately after mixing and within the pot life. The grout shall be poured continuously from one corner or side to avoid entrapment of air. Spread the poured grout evenly with a steel trowel. For congested areas, it is recommended to lightly tamp the shutters with a rubber mallet to remove the entrapped air.

Note: the grout which has exceeded its pot life shall not be used and shall be discarded immediately.

5. Cleaning:

All tools shall be cleaned with solvent immediately after use. Hardened materials can be removed mechanically only.

PRODUCT LIMITATIONS

Not available

STORAGE CONDITIONS

SmartCare EPT must be stored in a dry, cool, and shaded environment. In tropical climates, it is mandatory to store the product in an air-conditioned environment to maintain its integrity. It is crucial to avoid excessive exposure to heat, UV rays, and direct sunlight, as these factors will cause the product quality to deteriorate and significantly reduce its effective lifespan.

SHELF LIFE

The product has a shelf life of up to 12 months, provided it is stored strictly according to the recommended conditions in its original, unopened packaging.

SAFETY PRECAUTIONS

- Always wear protective gloves, goggles, and clothing during mixing and application to prevent skin or eye irritation.
- Avoid direct contact with skin or eyes; in case of contact, wash the affected area with plenty of clean water.
- If inhaled, move the affected person to fresh air immediately and seek medical advice if discomfort persists.
- Ensure proper ventilation at the site of application to avoid inhalation of fumes.
- Keep away from heat, sparks, and open flames. Do not smoke during handling.

CERTIFICATIONS

SmartCare EPT complies with ASTM D 1475, ASTM C 109/C 109M-21, ASTM C 196-1, ASTM C 307 >10, ASTM C 1202, BS 1881 ASTM D 4541, and BS EN 12390.

DISCLAIMER

The information provided in this Technical Data Sheet is based on laboratory tests, industry practices, and practical application experience. However, actual site conditions may vary and are beyond the manufacturer's control. Asian Paints makes no warranties, expressed or implied, and shall not be liable for any loss or damage resulting from improper usage, handling, or non-compliance with the recommended guidelines. Users are advised to test the product for suitability before full-scale application.