

EPONITE PS

High Strength Polyester Resin Mortar

DESCRIPTION

EPONITE PS is a two-component polyester resin mortar. The product consists of two packs of base resin component and two packs of catalysed filler. The mixed mortar possesses exceptionally rapid strength gains and will achieve an excess of 25 MPa after 1 hour. Hardened mortar possesses exceptionally high mechanical properties and chemical resistant.

USES

EPONITE PS is particularly suitable for use as a rapid setting bedding mortar for the reinstatement of street iron work and manhole frames. Its ultra-rapid curing properties make it particularly suitable for applications where a fast return to service is required, even at low temperatures. The hardened mortar has excellent bond strengths to both concrete and metal. It is also particularly suitable for bedding of runway light components, in critical applications.

ADVANTAGES

- Extremely high compressive strength.
- Excellent bond to concrete and metal.
- Cures under damp, cool conditions.
- Excellent workability to provide ease of application.

COMPLIANCE

EPONITE PS complies with highways agency advice note 1044-02 designed manual for roads and bridges. It meets the performance requirements of highways works specification HA 104. EPONITE PS also complies with the requirements of EN 1504 Part 3 Class R4.

Property	Value
Colour	Grey/Brown
Density	2300Kg/M3
Tensile Strength	9 MPa @ 3 hrs
Compressive Strength @ 20°C	43 MPa @ 1 hr 62 MPa @ 2 hrs 66 MPa @ 3 hrs 71 MPa @ 4 hrs 79 MPa @ 1 Day 89 MPa @ 3 Days 96 MPa @ 7 Days
Compressive Strength @ 7°C	14 MPa @ 1 hr 48 MPa @ 2 hrs 58 MPa @ 4 hrs 68 MPa @ 1 Day 74 MPa @ 3 Days 78 MPa @ 7 Days
Elastic Modulus	>15 GPA
Adhesion to Concrete	>2 MPa
Adhesion after 50 Free/Thaw Cycles	>2 MPa
Skid Resistance	Class 1
Capillary Absorption	<0.5 Kg/m ² /hr ^{0.5}
Pot life	25-30 mins @ 200C

PROCEDURE

Surface Preparation: Correct surface preparation is paramount for the success of the applied coating. Concrete and masonry surfaces should be sound clean and free from dust, surface laitance, grease, hydrocarbons, and other deleterious materials. It is important to prepare the surface by mechanical means such as, vacuum grip blasting and diamond grinding to ensure the complete removal of any contaminants and to provide an adequate key for the coating. The moisture of new concrete substrates should be less than 97% R.H. Imperfections in the substrate should be repaired using a suitable PREMCRETE REPAIR PRODUCT. Steel surfaces should be grit blasted to a nominal SA 2.5 Swedish standard. Steel substrates should be primed immediately once preparation has finished to obviate flash rusting.

Mixing: The base resin component should be emptied into a suitable mixing vessel, the catalysed filler component should then be added to the resin whilst mixing using a slow speed drill and mixing paddle, until the desired consistency is achieved. Mixing should continue until a homogeneous grout is formed that is of uniform consistency. The mixed grout has a very short pot life; therefore placement of the grout should commence immediately.

Application: EPONITE PS should be applied to the substrate using a suitable trowel, it is important to ensure that a good bond is achieved between the mortar and the primer, good compaction of the mortar is important. The mortar is applied at thicknesses between 5mm and 50mm, taking care to ensure that the mortar is not further edge. The trowel should be kept clean, using PREMCRETE CLEANING SOLVENT to prevent the mortar sticking to the trowel. This will ensure that a clean sharp finish is achieved

Curing: EPONITE PS would be cured sufficiently after 1hr at 200C to be fully trafficked.

PACKAGING & COVERAGE

Pack Size: EPONITE PS is supplied in a 25 Kg pack.

Yield: 1 pack will yield approximately 11.3 ltrs of mixed mortar.

Coverage: 1 pack will cover, approximately 1 M2 at 11 mm thickness.

STORAGE & SHELF LIFE

EPONITE PS should be stored in clean dry conditions at temperatures between 50C and 300C. When stored in unopened containers, the product will have a shelf life of 12 months.

HEALTH & SAFETY

See separate material safety datasheet