



Hychem E500T

EPOXY PATCHING MORTAR BINDER

Product Description

Hychem E500T is an epoxy binder with a paste like consistency to be used as a concrete patching compound. Hychem E500T is designed to be used as fairing mortar for application to prepared concrete surfaces which are to be coated with a protective coating. The product is used for the filling and sealing of small holes formed by the removal of cement paste during water blasting and other surface preparation methods. Hychem E500T can also be used as a general purpose patching compound for rendering or making good the surface prior to the application of a protective top coat.

Typical Applications

- Concrete structures exposed to acidic or alkaline effluent
- Concrete structures exposed to mineral oils and petroleum products
- Concrete structures exposed to animal and vegetable fats and oils
- Concrete structures exposed to salts, sanitisers and detergents
- The product is thus ideal for use in the lining of containment structures found in the mineral resources sector, paper and pulp mills and in the sewage processing industry

Hychem E500T is the ideal product for sealing and making good uneven and rough surfaces such as concrete block walls prior to the application of subsequent protective coatings.

Advantages

- Tougher and faster curing than cement/sand mortar screeds
- Contributes to the adhesion of the coatings system
- Light weight and easy to apply
- Resistant to dilute mineral acids
- Tenacious adhesion to concrete and primed surfaces
- Can be applied as a thin scratch coat over the whole surface
- Can be used to fill holes up to 10 mm in diameter
- Ideal for vertical and horizontal surfaces

Physical Properties

Physical Properties (@ 25°C, 50% RH)	
Solids content	90%
Pot life	30 min
Cure time	8 – 12 hours for foot traffic
Re-coat time	8 – 24 hours maximum
Tack free time	8 hours
Mix ratio by volume (Resin:Hardener)	2:1
Application temperature Until cured	Minimum 10°C – 30°C Maximum
Compressive strength	75 MPa



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Application Guidelines

Surface Preparation

Hychem E500T would normally be used as a patching compound over a substrate that has already been primed with the E500P or E300 product. See the E500P/E300 technical data sheet for instructions.

- Hychem E500T Epoxy Mortar is prepared by mixing the A and B components at a mix ratio of 2:1 by volume.
- The wet mortar mix is applied to a hand trowel and then skimmed over the entire surface at an approximate coverage rate of 4 square metres per litre.

After application the mortar filled holes are allowed to cure for a minimum of 8 hours. PLEASE NOTE: to ensure that all holes have been filled it will be necessary to apply E500T over the entire primed surface before the application of the protective topcoat. If it is not practical or possible to do so within the maximum re-coat window then it will be necessary to abrade the entire surface to provide a suitable key.

Pre-conditioning Product

It is important to note that even when the application environment is warm, products which have been stored in cold or cooler conditions should always be pre-conditioned ideally to 20–25°C to ease mixing, application and help avoid other potential issues such as amine bloom or blushing. Applying a cold product in a warm environment is not recommended.

Coating

The designated coating is then applied within 24 hours of the E500T application. For details see technical data sheets for Hychem TL5, TL5 EPL, TL9 epoxy tank linings.

Clean Up

Xylene or MEK can be used for cleaning tools and equipment before the mixed compound begins to harden. Dry product is best removed by physical means.

Coverage

1 litre would provide 1 mm of coverage over 1 square metre. @ 4 square metres per litre = 250 microns.

Chemical Resistance

Hychem E500T has much superior resistance to water based chemicals than concrete. It is important to note however that in containment structures it is the actual coating material that is the protective agent. The patching material simply performs the function of filling the holes and in the absence of a surface coating will simply perform equal to or better than the concrete substrate itself.

Safety Precautions

- Wear gloves, eye protection and overalls during mixing and application.
- Ensure there is adequate ventilation and avoid breathing the vapour.

Packaging

30 Litre kit

Storage

12 months from date of manufacture, stored under shelter at 25°C in the original un-opened container.



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Warranties and Disclaimers

Hychem warrants that this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper use and application of the product by the applicator. Hychem has no role in the application of the finished polymer other than to manufacture and supply its components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of spray equipment and application of sol-gel materials. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Hychem and executed under seal by a company officer.

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Field support where provided, does not constitute supervisory responsibility. Suggestions made by HYCHEM either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not HYCHEM are responsible for carrying out procedures appropriate to a specific application.

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