

HYCHEM E500T

Epoxy patching mortar binder

DATA SHEET



HYCHEM

INFRASTRUCTURE SOLUTIONS

HYCHEM E500T is an epoxy binder with a paste like consistency to be used as a concrete patching compound.

USE

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.

FEATURES AND BENEFITS

- 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 10mm in diameter
- Ideal for vertical and horizontal surfaces

PHYSICAL PROPERTIES (@ 25°C, 50% RH)

Solids content	90%
Pot life	30 mins
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

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 recoat 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 days of the E500T application. For details see technical data sheets for HYCHEM TL5, TL5 EPL, TL9 & TL9 GF 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 1mm of coverage over 1 square metre.

@ 4 square metres per litre = 250 microns.

SAFETY PRECAUTIONS

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

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.

PACKAGING

KIT SIZE	NO. OF COLOUR PACK REQUIRED
30 Litre	N/A

SHELF LIFE

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

SAFETY PRECAUTIONS

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

WARNING - ENVIRONMENTAL CONDITIONS

Temperature and the surrounding atmospheric conditions will play a part in the curing process of all epoxy products. Under conditions of low temperatures and high humidity the final cured surface finish can be adversely affected potentially resulting in poor gloss retention, discolouration over time, poor overcoatability and intercoat adhesion. Quite often these conditions will result in the formation of a white film over the surface often evident after contact with water. This chemical reaction with the atmosphere is commonly referred to as "amine bloom" or "amine blush".

If this occurs then the existing coating will need to be abraded to completely remove the affected surface to ensure the adhesion of subsequent applications. In some cases partial or complete re-priming may be necessary.

Attention also needs to be paid to the substrate temperature which should be at least 3°C and preferably 5°C above the dew point during the curing phase.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates and environmental conditions including substrate and air temperatures, humidity levels and dew point readings during both the application and curing processes. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

If in doubt consult the Hychem technical department for advice.

NOTE: Customer responsibility

The technical information and application advice given here is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation.

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.

If unsure contact Hychem for further technical advice before proceeding.