



HYCHEM
EPOXY SYSTEMS

HYCHEM E500T

Epoxy patching mortar binder

HYCHEM E500T is an epoxy binder with a paste like consistency to which filler aggregate can be added to form a concrete patching compound. The type and amount of aggregate can be varied to suit the nature of the patching operation that needs to be undertaken. The resin binder is slightly flexible to ensure that the patching mortar remains of a lower strength than the concrete so as to avoid the potential for concrete stress failure.

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 neat, without aggregate for the sealing of small holes formed by the removal of cement paste during water blasting and other surface preparation methods. When larger holes are present, HYCHEM LWA (light weight aggregate) can be added to the epoxy binder to reduce both slump and cost of the product.

TYPICAL APPLICATIONS

- Concrete structures exposed to acidic effluent
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- Concrete structures exposed to animal and vegetable fats and oils
- Concrete structures exposed to salts, sanitizers and detergents
- Concrete structures exposed to mineral oils and petroleum products
- 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

FEATURES AND BENEFITS

- Tougher and faster curing than cement/sand mortar screeds
- Contributes to adhesion of coating and does not need to be removed
- Light weight and easy to apply
- Resistant to dilute mineral acids
- Tenacious adhesion to concrete surfaces
- Can be applied as a thin scratch coat over whole surface
- Can be used to fill holes up to 10mm in diameter
- Choice of filler aggregate for larger repairs

PHYSICAL PROPERTIES (@ 25°C, 50% RH)

Solids content	100%
Pot life	30 mins
Cure time	Foot Traffic - 24 hrs Full Cure - 7 days
Re-coat time	12 - 48 hrs
Tack free time	5 hrs
Specific gravity	1.2 kg/ Lt
Mix ratio by volume (Resin:Hardener)	1:1
Film thickness per coat	up to 1mm

CHEMICAL RESISTANCE

HYCHEM E500 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.

APPLICATION GUIDELINES

Surface preparation

New Concrete

Prior to filling blow holes and indentations, the surface must be prepared to a level suited to the application of the final coating. This is carried out by water blasting the surface at a minimum pressure of 3,000 psi using a pump with a high volume water delivery capacity of no less than 20 litres/minute. The prepared surface is allowed to surface dry for a minimum of 4 hours.

Applying

- HYCHEM E500T Epoxy Mortar is prepared by mixing the A and B components at a mix ratio of 1:1 by volume.
- HYCHEM LWA (light weight aggregate) is added to the mixed mortar at a level suited to the surface profile. For minimal blow holes, no aggregate need be added.
- The wet mortar mix is applied to a hand trowel and skimmed over the whole surface, leaving little remaining on the surface itself. After application the mortar filled holes are allowed to cure for a minimum of 8 hours.

Priming

- This is necessary to seal the microfine porosity that was not sealed by the patching operation. Surfaces that are not completely sealed will yield air bubbles in the applied surface lining due to differential thermal movements between the substrate and the air space.
- HYCHEM E500P epoxy primer is applied by roller to the entire surface at a rate sufficient to completely wet out the surface without excessive liquid runs. Coverage rate is dependant on the porosity of the surface and may generally vary between 6-8 sqm/ Lt.

Coating

The designated coating is then applied within 7 days of priming. For details see technical data sheets for HYCHEM TL2, TL5, TL6 and TL7 epoxy tank linings.

CLEAN UP

Solvent MEK is recommended for clean up of tools and wet product. Dry product is best removed by physical means.

SAFETY PRECAUTIONS

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

PACKAGING

Kit size	Colour packs required
8 Lt	N/A
20 Lt	N/A
40 Lt	N/A

SHELF LIFE

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

Field Support

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.

Customer Responsibility

The technical information and application advice given in this publication 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 product 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. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.



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