



# EpiMax 555

## High Strength Renewal Binder

### Description

EpiMax 555 High Strength Renewal Binder is a fully thixotropic high strength epoxy system which adheres tenaciously to prepared concrete surfaces, both horizontal and vertical. It can be extended with suitable aggregates to provide greater economy.

EpiMax 555 High Strength Renewal Binder will be chosen for re-profiling of concrete surfaces prior to lining and coating. Repairs completed with EpiMax 555 will demonstrate greater tensile and compressive strengths than portland cement concrete and also show great chemical resistance.

EpiMax 555 utilises the latest advances in epoxy formulating chemistry.

EpiMax 555 will be specified and applied for concrete repair and renewal projects requiring fast return to service and high strength resurfacing and repair supporting medium for subsequent conformal coatings.



### Advantages

- Excellent adhesion to concrete
- High mechanical strength
- Good chemical resistance
- Convenient packaging & mixing
- Easily applied to vertical surfaces
- Easily extendible with aggregate
- Good low temperature cure
- Good adhesion to damp surfaces

### Typical applications

- General construction work
- Food, beverage & wine production
- Meat processing facilities
- Dairy production
- Sugar processing
- Oil & gas production
- Paper manufacturing
- Port & marine operations
- Waste water facilities - clarifiers, effluent tanks, pumps & pipes
- Bunded facilities - hostile chemical containment
- Pharmaceutical production
- Municipal waste transfer & disposal
- Mineral processing
- Power generation facilities
- Animal care centres
- Chemical processing

### Typical properties

- Shelf life: 2 years
- Tensile strength: 60 MPa
- Adhesion: > concrete tensile strength
- Compressive strength: 95 MPa
- Work time per pack: 2 hours at 25° C
- Tack free time: 7 hours at 25° C
- Cure time: 7 days at 25° C
- Achievable vertical lining build 100 mm

### Chemical resistance

High density repairs using EpiMax 555 are resistant to a wide range of chemicals. Specific data on request: Typical resistance to spillages includes: (examples only)

- Ammonia solutions
- Sulphuric acid 30%
- Lactic acid 10%
- Skydrol
- Sodium hydroxide
- Sodium chloride
- Volatile hydrocarbon solvents
- Kerosene
- Diesel oil
- Petrol
- Hydrochloric acid
- Vegetable oils

Surface staining may result from exposure to some aggressive chemicals. Seek EpiMax advice for specific applications.

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## Estimating data

8 ltr EpiMax 555 High Strength Renewal Binder = 10 sq m at 2.5 mm thickness extended with aggregate

## Preparation

Concrete should be at least 28 days old and free of additives, curing agents, oils etc. Prepare concrete by acid etching/neutralizing/washing, professional grinding or captive blast cleaning as applicable to expose firmly held aggregate. Surface profile should exceed CSP 3. Prepare steel surfaces in accordance with AS 1627-2002. Confirm preparation adequacy.

## Priming

Critical projects should be primed with EpiMax 222. Protect all newly primed surfaces and allow to harden fully, but the next stage should be applied within 24 hours of priming. If this time is exceeded, the critical foundation substrates must be re-primed.

## Application

Review the area in advance so that a fixed volume of mixed material can be applied over a fixed area to achieve correct application rate. Select the nominated quantity of EpiMax Aggregate #001 or suitable dry graded aggregate. Using a low speed (400 rpm) mechanical mixer combine EpiMax 555 Hardener and EpiMax 555 Compound. Mix until uniform, taking care not to aerate.

Add a suitable volume of aggregate to the mix and continue mixing until dispersed. Avoid aerating the mix. Then apply to the prepared surfaces using a suitable hand trowel. Finish to smooth contour. Then top coat as required with EpiMax 333AR. Do not subject to chemical exposure for seven days. For specific projects, EpiMax will prepare detailed specifications to control application.



## General cleaning

Regular housekeeping is critical in keeping surfaces chemically safe in OH&S terms. Wash, rinse and rinse again in accordance with agreed schedule. Splashes and spills should be removed within 24 hours. Verify that the frequency and effectiveness of the cleaning process is appropriate for site conditions. General policy should be to remove contamination when first logged, wash, scrub and double rinse, then, allow lining to dry completely. Inspect regularly.

## Packaging

EpiMax 555 is available in 8 litre packs (includes Hardener, Compound - Aggregate is additional). It is pre-packaged in correct proportions for immediate use.

Ordering Information: EpiMax 555 8 litre # 9055508

## Safety precautions

Read **Material Safety Data Sheet** before commencing any application. Keep away from children. Avoid contact with skin and avoid breathing vapour. Always provide adequate personal protection (gloves & goggles etc) during use. Always provide adequate ventilation, especially in confined spaces. If poisoning occurs, call Doctor or Poisons Information Centre. Phone 13 11 26. If swallowed, DO NOT induce vomiting. Give plenty of water or milk. If skin contact occurs, quickly remove contaminated clothing and wash affected areas thoroughly with soap and water.

TDG Code, EpiMax 555: Hardener - UN 1760. Compound - Not Classified. Aggregate - Not Classified