

# MULTIPURPOSE BINDER, PRIMER & LAMINATING RESIN epigen 0402

## TECHNICAL BULLETIN

0402 is a two component, multipurpose epoxy resin binder system which can be used as a metal or concrete primer, a fibreglass laminating resin, or filled with a variety of aggregates to produce a medium rate curing, high strength epoxy mortar. Based on polyamide technology, adhesion is a key characteristic of 0402 and meets broad spectrum features that lends it to many varied and diverse tasks.

0402 is also suitable for use in combination with other Epigen products such as rebuilding floors or tank linings.

### TYPICAL APPLICATIONS

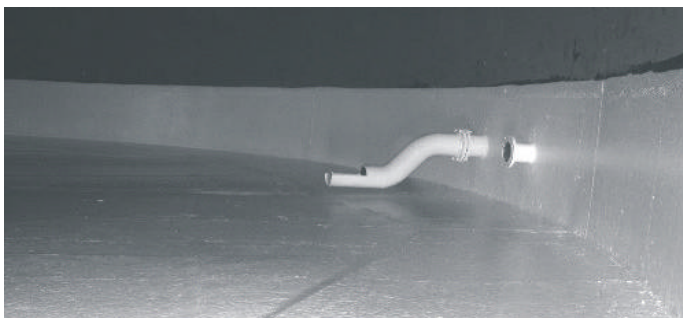
Fibreglass Laminating	Component moulding
Flooring Repairs	Electrical Potting
Concrete & Steel Primer	Timber adhesive
Concrete Repair & Fairing	

### FEATURES

- Polyamide system - superior adhesion
- Free of all solvents - zero VOC
- Versatility in application - can be used with GF
- Suitable in patching or repair of mortar
- Engineered for high strength.

### POTABLE WATER SUITABILITY

- Passed all requirements
- AS/NZS4020:2002 "PRODUCTS FOR USE IN CONTACT WITH DRINKING WATER"



### PROFILE

Ratio by weight	2 parts "A" to 1 part "B"
Pot Life minutes @ 24°C	40
Mixed consistency @ 24°C	Flowable Liquid
Specific gravity when mixed	1.1
Mortar Tack free time @ 24°C	8 hours
Primer Tack free time @ 24°C	12 hours

### TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	>70
Tensile strength ASTM D638, Mpa	>20
Flexural strength ASTM D790, Mpa	16
Hardness, Shore D	84
Dielectric constant ASTM D150 (150KHz)	3.0
Maximum exposure temperature, °C	105
Heat deflection temperature ASTM D648, °C	70
Thin Film Gel, (min recoat time) Minutes	120
Maximum recoat time, Hours	48
Ultimate cure time to Service, Hours	96

This information is supplied as an indicative reference only. Caution should be used where direct comparisons are to be made.

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## SURFACE PREPARATION

In line with all cases where good adhesion is expected, the substrate should be reasonably clean and free from loose particles. Methods for substrate preparation include abrasive blasting, etching, grinding or scarifying. The technique best suited depends on the substrate, the service conditions, and practical considerations.

## APPLICATION

Mixing of product should be carried out using slow speed mixers or spatulas, and completed by adding to the component "A", the component "B". Ensure the mix is homogenous and free from lumps.

## MORTAR PREPARATION

0402 can be used as a binder to which aggregate is to be added. Excellent results are achieved when dried silica sand in the range 0.6mm - 1.2mm. This is often referred to as 16/30 mesh size. Variations in porosity and strength may occur when changing grades of aggregate.

## TROWEL

In using Silica Sand 16/30 mesh, a mix ratio of 1 part 0402 to 8 parts sand provides an ideal trowel on mortar.

## SELF LEVELLING

Mix 1 part 0402 to 1.5 parts 30/50 sand and spread out with a squeegee or trowel, then over roll using a spiked roller to release air entrainment. Blind out by broadcasting 16/30 sand over top. Sweep off excess and top coat as required.

## PRIMER PREPARATION

0402 can be used as a primer prior to application of other systems or to hold surface condition. 0402 should be applied directly to the prepared surface.

## COVERAGE GUIDE

### Trowel (final DFT 6mm)

1.2 kg of *Epigen 0402* / m<sup>2</sup>.

9.6 kg of 16/30 Silica Sand / m<sup>2</sup>.

### Self Levelling (nominally 3mm)

1.4 kg of *Epigen 0402* / m<sup>2</sup>.

2.1 kg of 30/50 Silica Sand / m<sup>2</sup>.

Apply this mortar to nominally 2mm followed by broadcasting:

16/30 Silica Sand @ 1.4 kg/ m<sup>2</sup>.

After set, a seal coat is recommended.

### Primer Applications

1.1 kg of *Epigen 0402* yields 1000micron/ m<sup>2</sup>.

Nominally 100 micron on steel or 300 micron on concrete.

## CHEMICAL RESISTANCE

Tested at 21°C. Samples cured for 10 days at 25°C. Curing at elevated temperatures will improve chemical resistance.

1 = Continuous or long term immersion

2 = Short term immersion

3 = Splash and spills

4 = Avoid contact

Acetic Acid, 10 %	2	Acetone	3
Acetic Acid, Glacial	3	Ammonium Chloride	1
Hydrochloric Acid, 5 %	2	Beer	1
Hydrochloric Acid, 10 %	2	Dichloromethane	4
Hydrochloric Acid, conc	3	Diesel Fuel	2
Nitric Acid, 5 %	3	Isopropyl Alcohol	2
Nitric Acid, 10 %	3	Kerosene	2
Phosphoric Acid, 10 %	2	Petrol	2
Phosphoric Acid, 35 %	3	Salt Water	1
Sulfuric Acid, 30 %	3	Sewage	2
Sulfuric Acid, 70 %	3	Skydrol	3
Sulfuric Acid, 98 %	3	Sodium Cyanide	1
Ammonium Hydroxide, 5 %	2	Sodium Hypochlorite	3
Ammonium Hydroxide, 20 %	2	Toluene	4
Potassium Hydroxide, 5 %	2	Trichloroethane	3
Potassium Hydroxide, 20 %	2	Wine	2
Sodium Hydroxide, 20 %	2	Xylene	3
Sodium Hydroxide, 50 %	2		

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## CURE

Variations in cure may arise due to the amount of material being applied, the thickness of material being applied, the surface temperature, and the product temperature. The cure may be increased by heating product or by leaving mixed material stand for 15 minutes before use. The cure may be decreased by cooling the product before mixing.

## EPIGEN PRODUCTS

MANUFACTURED BY

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