

ELASTOMERIC BINDER & PRIMER

epigen 0411

TECHNICAL BULLETIN

0411 is a two component, flexibilized, multipurpose epoxy resin binder which can be used as a metal or concrete primer, or adhesive to bond fibreglass, wood, fabric, steel or a variety of plastics. Based on epoxy and polyurethane technology, resilience is a key characteristic of 0411 and meets a broad spectrum features that lends it to many varied and diverse tasks.

0411 is also suitable for use in combination with other Epigen products such as floor rebuilding.

TYPICAL APPLICATIONS

Fabric Welding	Joint Sealing & Primer
Fibreglass Laminating	Component moulding
Flooring Repairs	Electrical Potting
Concrete & Steel Primer	Timber adhesive

The surface finish may be laid as a thin film however it can also be laid as a primer, at 3mm thick, in unison with a low porosity aggregate like silica sand. It is acceptable to apply high builds in most situations to increase strength.

Application to inverted surfaces can be easily carried out without sag or fall when using fine grade aggregate. Large areas may be quickly treated preparing the product in self levelling mode.

FEATURES

- Epoxy/Polyurethane polymer system
- Free of all solvents - zero VOC
- Outstanding resistance to shock & stress
- Versatility in application - can be used with GF
- Suitable in patching or repair of mortar
- Fast Cure allows rapid return to service
- Application DFT from 1mm to over 40mm in 1 coat.
- Engineered for high mechanical strength.
- Versatility in application.



PROFILE

Ratio by weight	10 parts "A" to 1 part "B"
Pot Life minutes @ 24°C	<30
Mixed consistency @ 24°C	Flowable Liquid
Specific gravity when mixed	1.1
Tack free time @ 24°C	90 minutes

TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	n/a
Tensile strength ASTM D638, Mpa	>20
Flexural strength ASTM D790, Mpa	>50
Hardness, Shore D	70
Dielectric constant ASTM D150 (150KHz)	2.0
Maximum exposure temperature, °C	105
Heat deflection temperature ASTM D648, °C	75
Thin Film Gel, (min recoat time) Minutes	30
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.

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. Specialist advice is available from Peerless Industrial Systems to ensure the correct preparation procedure is employed for specific applications.

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 even.

PRIMER APPLICATION

0411 can be applied directly to surfaces and left to gel before overcoating with other polymers, including epoxy, or polyurethane. In the case of sheet rubbers like EPDM, apply 0411 directly to the surface and fix the sheet, restricting movement until cure has taken place.

MORTAR PREPARATION

0411 can be used as a binder to which aggregate is to be added. Extensive work has resulted in the recommendation of 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 over adding aggregate or in using too fine a grade.

TROWEL

In using Silica Sand 16/30 mesh, a mix ratio of 1 part 0411 to 5 parts sand provides an ideal trowel on mortar.

SELF LEVELLING

Mix 1 part 0411 to 1.5 parts 30/50 sand and after applying and using a spiked roller to address air entrainment, blind out by broadcasting 16/30 sand over top. Sweep off excess and top coat as required.

COVERAGE GUIDE

Primer (100 micron)

0.11 kg of *Epigen 0411* / m².

Trowel (final DFT 6mm)

1.8 kg of *Epigen 0411* / m².

9 kg of 16/30 Silica Sand / m².

After set, a seal coat is recommended.

Self Levelling (nominally 3mm)

1.4 kg of *Epigen 0411* / m².

2.1 kg of 30/50 Silica Sand / m².

Apply this mortar to nominally 2mm followed by broadcasting: 16/30 Silica Sand @ 1.4 kg/ m².

After set, a seal coat is recommended.

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

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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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