

CASTING & LAMINATING RESIN

epigen 2816CL

epigen
Performance Resins &
Composite Systems

TECHNICAL BULLETIN

Epigen 2816CL is a two component, unfilled epoxy binder which can be used unfilled as a clear finish on floors or fixtures, resin for fibreglass laminating, or clear casting material.

It cures water white and has extremely low yellowing, high strength, and excellent clarity upon cure.

TYPICAL APPLICATIONS

Finish for carpentry or artwork

Concrete sealer

Fibreglassing



FEATURES

Excellent UV stability

Application DFT from 50 micron to 3mm in 1 coat

Trafficable in 24 hours

Free of all solvents - zero VOC

Engineered for high mechanical strength

Versatility in application

Easily transformed into a highly non slip finish

PROFILE

Ratio by weight	2 parts Component "A"
	1 part Component "B"
Pot Life minutes @ 24°C	45
Mixed consistency @ 24°C	Flowable Liquid
Specific gravity when mixed	1.1
Kg/m ² for 200 micron low profile	0.28

TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	>100
Tensile strength ASTM D638, Mpa	>25
Flexural strength ASTM D790, Mpa	>18
Hardness, Shore D	88
Thermal conductivity ASTM C177, Kcal/m.hr°C	0.40
Coefficient of thermal expansion ASTM C531 (cm/cm/°C) x 10 ⁻⁵	3.8
Dielectric constant ASTM D150 (150KHz)	3.0
Maximum exposure temperature, °C	120
Heat deflection temperature ASTM D648, °C	80
Cure time @ 20° C, Hours	10
Ultimate cure time @ 20° C, Hours	72

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



SURFACE PREPARATION

Methods for substrate preparation in lining applications include using chemical means such as washing & etching, high pressure water blasting, or mechanical techniques such as abrasive blasting, grinding or scarifying.

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. Ensure the mixed material is homogenous, clear, and free from streaks.

Flooring or surfacing

Pour the mixed product directly into paint trays and using a medium nap roller, apply the product directly to the substrate ensuring the product is finished off evenly, removing excess puddles or trails.

Laminating

Fibreglass laminating is carried out by the application of a 'tack coat' to the contact surface, followed by application of the appropriate grade of fibreglass cloth. Displacement of air and wetting out of the cloth is carried out by means of conventional fibreglass rollers. Successive applications of Epigen 2816, clear and cloth are then applied until the desired laminate thickness is achieved.

Casting

Pour the mixed Epigen 2816CL directly into the mould, or onto the surface for casting. For high gloss clear finish, ensure the temperature is above 20 Celsius and humidity is less than 80%.



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