SKID RESISTANT COATING
epigen 3321

epigen
Performance Resins & Composite Systems

TECHNICAL BULLETIN

A two component, solventless epoxy flooring system with specific flexability and toughness to provide resilience where surfaces may be under extreme flex or movement. Providing exceptional durability, 3321 can be used with graded aggregate to provide a non slip finish for road surfaces as well as steel or concrete.

The surface finish may be laid as a two coat roll down coating incorporating the inclusion of aggregate to specific sizing and type to provide a non slip profiled finish specific to personal preference or requirements.

TYPICAL APPLICATIONS

Vehicle Workshops
Bridging Concrete Cracks
Barges and Boats
Loading Docks
Stairways
Aviation Taxiway Slot Infill
Steel Ramps
Bitumen Carparks
Ship Deck Coatings
Laundries
Roads and Motorways

FEATURES

- Highly Flexible and Resilient
- Excellent over Bitumen and Steel
- Simple 2 coat application
- Free of all solvents - zero VOC
- Designed for inherent toughness
- Versatility allows loading with sand and patching
- Selection of aggregate enables non slip quality selection
- Strongly adhesive
- Inert finish makes cleaning practical

Epigen 3321 is supplied as a two part kit comprising component “A” resin, and component “B” curative. The entire kit is supplied in a pre weighed convenient size to make on site activities easier.

Peerless Industrial Systems can provide aggregates suitable for industry acceptable finishes based on historical knowledge or suggest alternatives to comply with special requirements.
The range of colours available as standard are black or grey. Special colours may be provided, tinted in batch lots.

PROFILE

Ratio by weight	1 part 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 2.5mm nonslip	1

TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	>70
Tensile strength ASTM D638, Mpa	>12
Flexural strength ASTM D790, Mpa	>18
Hardness, Shore D	78
Thermal conductivity ASTM C177, Kcal/m.hr° C	0.32
Coefficient of thermal expansion ASTM C531	
(cm/cm/° C) x 10^{-5}	4.9
Maximum exposure temperature, ° C	100
Heat deflection temperature ASTM D648, ° C	65
Cure time to light traffic, Hours	16
Cure time to open traffic, Hours	24
Ultimate cure time, 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

Methods for substrate preparation include the use of chemical means such as washing & etching, 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. Add to the component "A", the component "B" and mix till even.
Using a roller, apply the 3321 directly to the substrate ensuring it is finished off evenly, removing excess puddles or trails.
The product should be applied to acheive a practical coverage of 4 m^2/ kg where 16/30 mesh sand is the nominated aggregate. 6 m^2/ kg should never be exceeded to maintain aggregate holding properties. The applied product should then have aggregate evenly broadcast over all areas. Suitable aggregates include quartz, silica sand, copper slag, garnet, silicon carbide and aluminium oxide. The application of aggregate should occur within 30 minutes of the first coat application. Ensure the product is totally blinded out by the aggregate to excess.
Leave to cure for 8-12 hours before carefully sweeping away all loose unbound aggregate. Then apply a final coat of Epigen 3321 over the entire area at a coverage rate of 1.5 m^2/ kg, based on 16/30 mesh sand aggregate, to leave the floor with an even appearance.

Should a finer grade of aggregate be used, less 3321 will be required and where a very coarse aggregate is used, significantly more product will be required.

COVERAGE GUIDE

Non Slip Finish - Final film (nominally 2.5mm)

Epigen 3321	1st coat	6 m^2/ kg
30/60 mesh sand	3 kg / m^2	
Epigen 3321	2nd coat	1.5 m^2/ kg

3321:1982/Apr
rev5,2013/Aug

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	2	Ammonium Chloride	1
Hydrochloric Acid, 5 %	1	Beer	1
Hydrochloric Acid, 10 %	1	Dichloromethane	4
Hydrochloric Acid, conc	2	Diesel Fuel	2
Nitric Acid, 5 %	2	Isopropyl Alcohol	2
Nitric Acid, 10 %	3	Kerosene	2
Phosphoric Acid, 5 %	1	Petrol	3
Phosphoric Acid, 20 %	1	Salt Water	1
Sulfuric Acid, 20 %	2	Sewage	1
Sulfuric Acid, 75 %	2	Skydrol	2
Sulfuric Acid, 98 %	3	Sodium Cyanide	1
Ammonium Hydroxide, 20 %	1	Sodium Hypochlorite	1
Ammonium Hydroxide, 50 %	1	Toluene	2
Potassium Hydroxide, 5 %	1	Trichloroethane	3
Potassium Hydroxide, 20 %	1	Vinegar	1
Sodium Hydroxide, 20 %	1	Wine	1
Sodium Hydroxide, 50 %	1	Xylene	3

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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**
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