

# SOLVENTLESS HB COATING

## epigen 1412



### TECHNICAL BULLETIN

Substitute for traditional Coal Tar Coatings eliminating the health concerns associated with Coal Tar, 1412 is a highly resilient, surface tolerant, solventless epoxy synthetic hydrocarbon blend provides a tough, flexible coating possessing a high degree of corrosion resistance. Characterised by its strong adhesive nature, application to suitably prepared metal, wood and concrete surfaces by brush roller or spray techniques ensures excellent resistance and protection from a wide range of chemicals, particularly salt water and alkali solutions. Highly resistant to aqueous solutions as a result of the hydrophobic nature of the synthetic hydrocarbon, 1412 meets a high standards of corrosion protection.

Primarily a barrier coating or lining suited to treatment of steel, concrete and brick applications, 1412 is characterised by strong adhesive properties and surface tolerant traits reducing risks associated with poor preparation.

Provides excellent corrosion resistance to metal and concrete support pillars, wharf structures, pump casings and brick and timber retaining walls. Typically the areas of use are plentiful. Areas susceptible to corrosive deterioration from general environmental conditions and materials are afforded excellent protection.

#### TYPICAL APPLICATIONS

Steelwork Coating	Pipelines & Valves
Dust Extraction Systems	Sumps & Drains
Ducting Systems	Pumps & Risers
Wharf Piles & Posts	Concrete Repair



#### PROFILE

Ratio by weight	2 parts "A" to 1 parts "B"
Pot Life minutes @ 24°C	60 minutes
Mixed consistency @ 24°C	Viscous Flowable Liquid
Specific gravity when mixed	1.5
Kg/m <sup>2</sup> for 500 micron	0.75
Tack free time @ 24°C	<60 minutes

#### TYPICAL CURED PROPERTIES

Compressive strength ASTM D695, Mpa	60
Tensile strength ASTM D638, Mpa	15
Flexural strength ASTM D790, Mpa	Not Available
Elongation ASTM D638, %	>15
Hardness, Shore D	70
Dielectric constant ASTM D150 (150KHz)	Not Available
Maximum exposure temperature, °C	80
Heat deflection temperature ASTM D648, °C	60
Thin Film Gel, (min recoat time) Minutes	180
Maximum recoat time, Hours	24
Ultimate cure time to Service, Hours	48

#### FEATURES

- Substituted synthetic hydrocarbon for toughness
- Coal Tar free - OH&S reduced risks
- Application DFT up to 1000 micron in the one coat
- Free of all solvents - zero VOC
- Outstanding resistance to aqueous media
- Versatility in application - can be used with GF
- Very flexible and resistant to impact shock

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 may include chemical means such as washing & etching, high pressure water blasting, or traditional abrasive blasting techniques . Caution should be maintained in selecting a technique that provides satisfactory anchor for the lining. 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 and completed by adding to the part "A", the part "B". Ensure the mix is homogeneous and free from lumps. Avoid air entrainment.

1412 can be applied either by airless spray, brush or roller. Since it does not contain solvents, application by spray allows the application of high film thicknesses in single coats, and ensures that all material purchased actually contributes to the final DFT. 1412 is a higher viscosity than conventional solvent containing coatings and application may require more specialised practices but is generally compensated for by the speed of application and need to apply fewer coats.

Epigen Diluent maybe added to 1412 to control viscosity under some circumstances. Avoid excessive additions and do not add Diluent in confined spaces or near naked flame. Do not add thinners to extend pot life.

In concrete correction applications, blow holes, cracks, or significant damage maybe faired by mixing 1 part 1412 with 1.5parts 30/50 sand and applying the paste to the damaged areas. This practice should be employed after the first coat application when the extent of degradation becomes apparent and before second coat application.

1412 is a functional, industrial finish and is not developed to possess asthetic properties such as high gloss which would enable it to be used where appearance is particularly important.

### 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

### MANUFACTURED BY

## Peerless Industrial Systems Pty Ltd

ABN 14 097 615 391

79 Robinson Ave, Belmont, WA 6104

PO Box 407, Cloverdale, WA 6985

Phone: (08) 9477 3788 Fax: (08) 9477 3766

Email: [service@peerlessindustrialsystems.com](mailto:service@peerlessindustrialsystems.com)

[www.peerlessindustrialsystems.com](http://www.peerlessindustrialsystems.com)

[www.epigen.com.au](http://www.epigen.com.au)