

SOLVENTLESS HB COATING

epigen 1412FC

Designed to supersede Coal Tar Coatings and the health concerns associated with Coal Tar, 1412FC is a fast cure, 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, 1412FC meets one of the high standards of chemical resistance and corrosion protection achievable.

Primarily a barrier coating or lining suited to treatment of steel, concrete and brick in applications, 1412FC is characterised by fast cure 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

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
- Fast Cure - rapid return to service
- Cures at very low temperatures



PROFILE

Ratio by weight	4 parts "A" to 3 parts "B"
Pot Life minutes @ 24°C	<10
Mixed consistency @ 24°C	Viscous Flowable Liquid
Specific gravity when mixed	1.5
Kg/m ² 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	90
Heat deflection temperature ASTM D648, °C	60
Thin Film Gel, (min recoat time) Minutes	20
Maximum recoat time, Hours	24
Ultimate cure time to Service, Hours	48

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.

1412FC 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. 1412FC 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 1412FC 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 1412FC 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.

1412FC 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

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