

Zinc Base Coat

Product Code : **EP 3913**

Product Description

Zinc Base Coat is a Zinc filled Epoxy Thermosetting powder coating designed as a rust inhibitor / primer for ferrous metals.

Zinc Base Coat can be used as a functional finish coat in some situations but primarily designed as a base coat for subsequent finishing with powder or liquid topcoats..

Product Features

- Excellent corrosion resistance
- Hard wearing surface
- No solvents or emissions
- Excellent chemical resistance
- Very good flow
- Excellent base for either liquid or powder topcoats
- 100% utilization
- Added durability to ferrous metals
- Very good transfer and recoat ability
- Sacrificial coating

Use indications

Insoltech Zinc Base Coat has been formulated as a base primer / sacrificial coating over suitably prepared ferrous metals owing to demand by the metal finishing industry due to the increasing environmental regulations covering solvent emissions and solvent waste products from traditional liquid systems.

Zinc Base Coat is used on outdoor furniture, street signage, fencing, motorway barriers, LPG bottles, automotive parts, trailers, boat parts, electric transformers etc etc.

Zinc Base Coat can be used on other substrates such as galvanized steel.

Product performance

Salt Spray	2000 hours ASTM B117 over grit blast mild steel to Class 2.5
Humidity	1000 hours 38°C/ 100% humidity over grit blasted steel
Pencil Hardness	Min 3H
Knoops Hardness	Min 18
Flexibility	Pass 80 inch/lb
Cross Hatch Adhesion	No removal

Heat	Excellent resistance up to 120°C continuous service conditions
Acid	Resistant to most dilute acid spills
Alkali	Resistant to most dilute alkali spills
Weather resistance	Zinc Base Coat is intended to function as a base metal undercoat / primer, the formulation is based on Epoxy Resins as such the product will chalk in exterior exposure. Zinc Base Coat can be used as an interior functional coating however the product must be top coated in exterior applications.

Chemical resistance

Ethanol	Resistant
Diesel Oil	No Effect 400hrs
White Spirits	Resistant
Petrol 96 Octane	No Effect 400hrs
Detergent diluted	No Effect 400hrs
Xylene	Slight softening avoid extended contact
Methyl Ethyl Ketone	Softens with prolonged contact

Product Specs

Colour	A Mid Tone Grey
Specific Gravity	2.2-2.3
Gloss	Satin - 40-45% measured @ 60°
Shelf Life	6 -12 months when stored below 25°C dry conditions

Application

Application method	Electrostatic Spray
Cure Schedule	As a Base Coat <u>green cure</u> 3-5 mins @ 200°C followed by topcoat then fully cure the system for a further 10-15 mins at 200°C Metal Temperature As a functional coat full cure is achieved 200°C for 20 minutes Metal Temperature
	Ensure to green cure the base coat, as a fully cured zinc base coat film will result in <u>no inter-coat</u> adhesion with subsequent top coats
Coverage	To achieve the desired zinc protection a minimum film build of 80µm is required, ideally film builds in the range 80 - 120µm is preferable.
Surface Preparation	All surfaces should be free from oxides, mill scale, greases and lubricants, Surfaces to be coated should be grit blasted to SA 2.5 finish, avoid flash rusting, ferrous metals should be pretreated immediately with zinc phosphate or alternative treatment to BS6497. Coating should take place within 12 hours.

Precautions

- Optimum corrosion resistance requires application, film thickness and cure parameters to be followed carefully.
- Zinc Base Coat should not be used in acidic environments.
- Zinc Base Coat is not recommended on articles that will be exposed to constant temperatures exceeding 120°C.
- Do Not fully cure Zinc Base Coat before top coat/s are applied.

Transportation

Packaging	20kg net cardboard carton
Flashpoint	N/A
UN:	N/A
Dangerous Goods Class	N/A
Not dangerous goods. No special transport required	

Care & Maintenance

As a general rule, cleaning of any organic surface coating must take place every six months. In heavy industrial, marine or where harsh chemicals are used a more regular cleaning program should be implemented.

Cleaning should be with warm water containing a mild detergent, use a soft brush or sponge, care should be taken to avoid scratching the surface of the coating.

Always rinse with fresh water ensuring that all detergent residue is removed.

Applicator Precautions.

Given wide application techniques, oven variations, substrate weights and cure parameters Insoltech Zinc Base Coat may have varying results in its appearance and or performance. Therefore it is the applicator and or their clients responsibility to ensure the zinc base coat conforms to their individual requirements.