ZINCFIX® ZINC RICH EPOXY FOR DAMAGED STEEL COATINGS

INTENDED USES:

Zincfix® is an organic bound zinc rich coating containing >80% metal. It is applied to clean steel and hot dip galvanized surfaces to form an adherent anti-corrosive layer in excess of 100 microns thick. Zincfix® combines the convenience of squish pack technology with the chemistry of modern solvent free epoxies.

Packaging

The product is supplied in a sealed, 2 compartment, reinforced plastic pouch. It is easy and clean to mix and use, it ensures exact mixing and 100% reproducibility. The mixing process takes place within the sealed container, thus the user is not exposed to the contents until the pack is cut open ready for use.

Product Description

Two component, solvent free, zinc rich, epoxy repair coating for galvanizing.

Product Background

When suitably cleaned steel is dipped in molten zinc at 450°C a coating comprising a series of iron/zinc alloy layers, over-coated with relatively pure zinc, is formed. The hot dip galvanized coating provides a barrier against corrosion but additionally, provides sacrificial protection when the coating is site cut, welded or mechanically damaged. In order to prevent this sacrificial protection property prematurely consuming the surrounding coating, repair of the damaged coating using Zincfix® is recommended.

Product Features

- The mixing of small packs reduces waste and the product is visible at all times.
- Although the medium grey metallic colour of Zincfix® will stand out on the bright shiny surface of newly exposed zinc, it will blend into a very similar finish once the stable matt grey zinc carbonate film has formed.
- Zincfix® is resistant to white rust as the metal is bound by the epoxy binder. The product is resistant to 1000 hours humidity and 1000 hours salt spray resistance at a thickness of 400 microns, with very little whitening.
- Zincfix® is an excellent anti corrosive primer for steel and is ideal for rust prevention and repair of corroded steel. It can be applied as a single coat and can be over-coated with any kind of conventional painting system.
- Zincfix® can be used as a repair and build-up material for minor automotive coating repairs e.g. – scratches, stone chips and small dents. Being very dense, the product exhibits very low shrinkage and is more adherent than conventional polyester body fillers. It can also be used to imbed fibreglass tissue for rust perforation repairs.

Standard Colour Availability

Metallic grey

PRODUCT INFORMATION	
Volume Solids	100%
% Zinc in Dry Film	>80%
Film Thickness (Typical)	Wet 100µm
Over 6mm	Dry 100µm
Theoretical Spreading Rate	10 m2 per litre at stated volume solids at a DFT of 100µm
Temperature Resistance	Continuous dry temperature 120°C
Number of Components	2 component “squish pack”
Pot Life	30 minutes at 25°C at 65% RH
Density	3.6 +/- 0.1 kg per litre

Mixing

Number of Components
Supplied as a 100 gram, 2-compartment pouch with the individual components separated by removable seals.

Mixing
The product is mixed by removal of the seal and rubbing and squashing the components together inside the pouch. The contents will start to heat up after 10 minutes (exothermic reaction) and must be used within 25 minutes of mixing.

Method of mixing and application

Remove the temporary seal between the zinc powder epoxy and the curing agent (clear liquid) by pulling on the packet in both directions until the rubber seal pops out. Squeeze the curing agent into the zinc powder epoxy compartment.

Move the contents backwards and forwards to effect complete mixing for approximately 5 minutes. It is recommended that the squish pack be placed on a flat surface and "ironed" backwards and forwards using the flat surface of the channel from the temporary seal.

Ensure that all the material is squeezed out of the corners into the centre of the packet and thoroughly mixed in with the contents.

To apply:
Cut the corner off the mixed packet and squeeze sufficient material out to coat the area to be prepared. Spread the material with a stiff bristle brush or a plastic (polypropylene) applicator. The contents of the packet are sufficient to coat approximately 0.28 m2 at a dry film thickness of 100µm.

DO NOT:

Attempt to use the product after the pot-life has been exceeded. This product is designed for a 30 minute pot-life at 25°C. The pot life will be shorter at higher temperatures and longer at lower temperatures. Wetting of the substrate is important for adhesion – when the product is too thick (at the end of its pot-life) it is recommended to discard the material and mix a new packet.

Drying:
The product will harden within 2 hours and will be usable or can be overcoated within 6 hours.

Thinning:
The material is supplied at a brushing viscosity. Thinners must NOT be used with this product.

Cleaner:
Any commercially recommended thinners may be used.

Application Environment

	Surface Temperature	Ambient Temperature	Relative Humidity
MIN	10°C*	8°C	40%
MAX	45°C	45°C	95%

Drying Time

Touch Dry	Overcoating Interval		Dry to handle	Full Cure
	Minimum	Maximum		
2 hours at 25°C for 75µm at 65% RH	6 hours at 25°C at 65% RH	48 hours	6 hours at 25°C at 65% RH	7 Days

Health & Safety

Avoid contact with the skin by using gloves, barrier creams and facemask. If the product comes into contact with the skin, wash immediately with lukewarm water and soap: if the eyes are affected, flush with water or diluted boric acid solution and seek medical attention at once.

Packaging

Supplied in cartons of 10 units. Each unit consists of a 100gram, 2-compartment pouch with the individual components separated by removable seals. Each unit is protected by an outer metallized foil pouch.

Surface Preparation

Degrease steel surfaces followed by a high-pressure water rinse.

Method

a) Hot dip galvanized surfaces (repair of defects) – surfaces must be abraded for a minimum distance (radius) of 25mm from the defect using 220# waterproof emery paper (or finer) and water as a lubricant. The defect should be exposed to bare metal but the size should be kept as small as possible. Immediately after abrasion, wipe the surface clean and apply the premixed repair material WITHIN the abraded area. Do not overlap the 'patch' onto un-abraded galvanizing.

b) Steel Surfaces – surfaces to be coated should be abraded to clean, bright metal, free of oils and any other contaminants. Optimum performance is obtained by application to abrasive blast cleaned surfaces prepared to minimum Sa2½ in accordance with ISO 8501-1.

Limitations

The product will chalk on prolonged exterior exposure.
The product will cure below a temperature of 8°C.

Disclaimer

ZINCFIX®

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