Shieldprime ZR2

Two-component, Solvent-based, Zinc-rich Epoxy Primer

MICSHIELD®

TECHNICAL DATA SHEET

Description

Shieldprime ZR2 is a two-component, solvent-based, zinc-rich epoxy primer, designed to provide exceptional protection for steel and metal substrates.

Uses

- Protection of steel structures, pipes, and equipment in heavy-duty industrial environments.
- Suitable for petrochemical, chemical processing, automotive, and other industrial facilities.
- Used as a maintenance zinc-rich primer for steel surfaces and reinforcement bars.
- Compatible with the entire **Shieldrep** concrete repair range.

Characteristics / Advantages

- Provides excellent protection for metal and steel substrates.
- Excellent resistance to salt and chloride attacks.
- High zinc content for enhanced corrosion resistance.
- Outstanding durability and chemical resistance.
- Excellent adhesion to steel surfaces.
- Good resistance to weathering exposure.

Packaging

Shieldprime ZR2 is supplied in 5 kg packs.

Shelf Life and Storage

Shieldprime ZR2 has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Typical Properties

Color	Grey
Density	2.6 – 2.7 g/ml
Pot Life	4 hours
Overcoating Time	2 – 4 hours
Wet Film Thickness	85–170 µm
Dry Film Thickness	50 – 100 µm
Solid Content by volume	58 ± 2%
Application Temperature	10 – 40 °C.

Application Instructions

1. Surface Preparation

Steel substrates must be dry, clean, and free from dust, oil, grease, rust, loose materials, surface contamination, and any materials that may reduce bond or prevent adhesion. Grit blasting can be used to achieve SA 2½ surface profile. Remove dust before application.

2. Mixing

Components A and B should be stirred separately before being mixed. **Component B** (hardener pack) should be added to **component A** (base pack) and mixed using a low-speed mixing drill for 3 minutes while reaching the walls and bottom of the container until a homogeneous and consistent material is obtained. Once mixed, the material should be used within its specified pot life.

3. Application

Shieldprime ZR2 is applied on the prepared substrates using a brush, roller, or sprayer. A second coat may be required, within the overcoating time, to achieve complete surface coverage. Regular stirring of the mixture is advised to avoid the settlement of zinc dust/ filler.

4. Cleaning

Clean the tools and any uncured material using a suitable solvent. Hardened material should be removed mechanically.

Consumption and Coverage

Consumption: Approximately 0.45 kg/m² at 100 µm DFT.

Coverage: Approximately 2.20 m²/kg at 100 µm DFT

Values may vary due to site wastage and substrate condition/profile.

Limitations

- Do not apply the product if the ambient temperature is less than 10°C.
- Avoid excessive application thickness, which may lead to debonding.
- If the overcoating period is exceeded, lightly abrade the surface before applying subsequent coats.
- Protect freshly applied coatings from moisture and rain until fully cured.
- Do not apply over wet or damp substrates. Not intended for continuous immersion in water or chemicals.
- Use only in well-ventilated areas to prevent the accumulation of solvent vapors.
- Keep containers tightly closed when not in use and store in a cool, dry, well-ventilated location.
- Do not change the specified mixing ratio, and ensure thorough mixing for the specified time to achieve proper performance and curing.
- **Shieldprime ZR2** can be diluted with up to 5% solvent.

Safety Instructions

The application should be done in a well-ventilated area with adequate air circulation, away from any heat source and ensure having gloves, eye protection, masks and protective clothing.

This product contains flammable solvents and should be kept away from heat, sparks, open flames, and other sources of ignition.

Avoid contact with the eyes and skin. In case of direct contact with the skin, wash the affected area immediately with water for several minutes. If it comes into contact with the eyes, rinse immediately with lukewarm water for at least 15 minutes and get medical advice or treatment if any emergency warning signs appear.

Dispose of any leftover epoxy and waste materials according to local regulations and guidelines. For further information, refer to the Material Safety Data Sheet.

Technical Support

Refer to technical information, method statement, or contact technical support team for any inquiry.

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