Metal-Prime WB

Waterborne Anti-Corrosive Primer for Metal Substrates

Product Overview

Single component, water-based anti-corrosive primer.

Uses

For priming a wide range of metal substrates and promoting adhesion prior to the application of Flexcrete's decorative and protection membranes. Compatible with metal substrates including:

Mild Steel	Aluminium
Stainless Steel	Copper
Lead	Alloys including brass
Zinc	Galvanised metal
Flashband	Tin

Advantages

- Innovative single pack, epoxy polymer chemistry with resistance to flash rusting.
- Enhanced barrier properties from interleaving glass flake composition.
- Environmentally sound, ultra-low VOC, low odour, water-based formulation.
- Rapid drying, can be overcoated within just 30 minutes.
- Easy and safe application with distinctive oxide red colour to ensure effective coverage of substrate.
- No pot life considerations with minimal wastage.
- Excellent adhesion to a wide range of ferrous and non-ferrous metal substrates.
- Forms an excellent bond with Flexcrete's range of high performance coatings.
- Equipment is easily cleaned with water. Container can be re-sealed and stored for future use.
- Can be used without a top coat in low demand internal applications.

Description

METAL-PRIME WB is an innovative, waterborne anti-corrosive primer with enhanced protective barrier properties from interleaving glass flake composition and modern anti-flash rust additives. Suitable for application to both external and internal metal substrates and for use in enclosed environments, it is extremely rapid drying and cures without the release of hazardous solvents or strong odour.

Quickly and easily applied by brush, roller or airless spray, **METAL-PRIME WB** forms a distinctive oxide red film when applied and is ideal for application to metal substrates prior to the use of Flexcrete's high performance coatings. The excellent adhesion, low hazard properties and anti-corrosive nature of **METAL-PRIME WB** make it the ideal primer for the protection of metal substrates, promoting excellent top coat adhesion.

Technical Data

Property	Typical Result
Base	Styrene acrylic copolymer modified with a unique water-emulsified epoxy cross-linked bonding agent. Additives to impart flash rust and corrosion resistance.
Colour	Oxide Red
Solids Content	58.5% by weight 47% by volume
Specific Gravity	1.1-1.2
Dry/Cure Time	30 min (20ºC.), 90 min (5ºC.) Note: very high humidity will increase dry/cure time.
Prohesion to ASTM G85-94 (primer only)	No corrosion after 1,250 hours.
Constant Immersion in 40ºC. Salt Water	No corrosion after 1,500 hours.
Flexibility to ASTM D-522 Method A (Conical mandrel bend test)	**METAL PRIME WB** remains intact.
Accelerated Weathering to BS EN ISO 11507: 2007	No blistering, cracking or flaking after 4,000 hours.
Scratch Resistance to BS 3900: Part 2, 1986	PASS with a 2.5kg weight.

The properties given above are obtained from laboratory tests: results obtained from on-site testing may vary according to site conditions.

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Application Instructions

DO NOT APPLY WHEN TEMPERATURE IS BELOW 5ºC. OR WHEN RAINING.

Preparation

Surfaces must be free from dirt, dust, oil, grease, organic growth and any corrosion products that could impair adhesion or cure. For maximum durability, steel should be cleaned back to bright metal, ideally to Sa2½ as defined in BS 7079: Part A1/ISO 8501 (SSPC.SP10). Where environmental constraints preclude blast cleaning, lower forms of preparation are acceptable, providing all loose oxides are removed. Handheld power tools capable of achieving the necessary preparation can be used, as can high pressure water jetting techniques. Metal prepared in this way should be to minimum standard of St 3 as defined in BS 7079: Part A1/ISO 8501 (SSPC.SP3). Arrises and welds should be ground to remove sharp edges. Remove dirt and dust and, if grease is present, clean with a proprietary degreasing solution. Rinse, clean and dry thoroughly to prevent the formation of further corrosion products.

Equipment

Brushes: Soft nylon or bristle paint brushes.

Rollers: Medium pile sheepskin roller or equivalent.

Spray: Airless spray at 2500-3000psi, 11-19 thou tip size.

Application and Curing

Apply one coat by brush, roller or airless spray at a maximum coverage rate of up to 10m²/litre on smooth substrates or 8m²/litre on more textured substrates. On surfaces with a heavy blast profile and other deeply textured or highly irregular substrates, two coats may be required to ensure coverage. On completion, check carefully for pinholes and spot treat accordingly.

Allow primer to dry prior to overcoating with the chosen membrane as detailed on the individual Technical Data Sheet, ideally within 24 hours. Application may take place within 7 days but, if the primer is left any longer, a further coat of **METAL-PRIME WB** should be applied.

Note: Do not apply when temperature is below 3°C., when raining or if rain likely within expected cure time.

For further information, please refer to priming guide.

Coverage (Typical)

Smooth Substrates: 10m²/litre (max.).

Non-smooth Substrates: 8m²/litre.

A 5kg unit covers approximately 40-50m².

Note: A heavy blast profile and other deeply textured or highly irregular surfaces may require a second coat of primer to ensure full coverage.

For further information, please refer to Priming Guide.

Cleaning and Storage

All tools should be cleaned with water before the Primer cures. It is advisable that brushes and rollers are occasionally cleaned during use. Spray equipment must be emptied and flushed at the end of the working day.

Materials can be stored for 12 months in dry, frost free conditions in original sealed containers. Protect from high temperatures (40ºC.+) over prolonged periods.

Packaging

METAL PRIME WB is supplied in 5 litre units.

Health and Safety

Safety Data Sheets are available on request.

Application Top Tips

1. Rough, porous or irregular substrates will reduce coverage.
2. For brush application use soft nylon or bristle brushes.
3. For roller application use a sponge or short pile mohair roller. Take care to avoid pinholes.
4. When applying by airless spray techniques use an 11-19 thou tip and spray at 2500-3000psi.
5. Clean brushes and rollers occasionally during use.
6. Regularly clean spray nozzles to avoid blockages.
7. Spray equipment must be emptied and flushed at the end of the working day.
8. When spraying, use appropriate PPE.
9. Cold Weather Working (See separate Guide)
   - Do not apply below 5°C.
   - Do not use any product which has been frozen.
10. Protect from prolonged storage at high temperatures (≥40°C.).