

MA3 Tie-Coat

ThistleBond 'MA3 Tie-Coat' is a high performance anti-corrosive solvent based epoxy coating designed for use as a versatile universal primer for metallic and GRP substrates.

ThistleBond 'MA3 Tie-Coat' uses a well established blend of high molecular weight epoxy resin and a range of fine inorganic pigments and fillers combined with a specially formulated polyamine adduct which react together to product an effective anti-corrosive system with excellent adhesion to a wide range of surfaces whilst providing an extended overcoating window for most finish Systems.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Steel Surfaces: All oil and grease must be removed by thoroughly degreasing with **ThistleBond 'SFE Thinners'** All rust and millscale must be completely removed. The preferred method for removal of rust and millscale is abrasive blast cleaning to a minimum of SA2½ to British Standard 7079 Part A1:1989 or equivalent near white finish. Where blast cleaning is not possible surfaces should be thoroughly cleaned by grinding or needle gunning.

Galvanised Steel: All oil and grease must be removed by thoroughly decreasing with **ThistleBond 'SFE Thinners'**. Any zinc corrosion salts must be removed by abrasion or thorough wire brushing.

Aluminium Surfaces: All oil and grease must be removed by thoroughly degreasing and the metal surface should then be abraded or lightly abrasive blasted.

Polyester/Phenolic GRP Surfaces: Abrade with 80 grade abrasive paper to remove all surface contamination. On Gelcoat use a random orbit sander to achieve a uniform mat finish.

MIXING

ThistleBond 'MA3 Tie-Coat' is a two component material which must be mixed together prior to use.

The resin component should be thoroughly stirred to incorporate any slight separation then the total contents of the hardener container should be added and stirring continued until a homogeneous mix is achieved. Mechanical stirring using an electric drill fitted with a mixing device is the preferred method.

The mixed material must be used within 8 hours of mixing at temperatures of 20°C (68°F).

APPLICATION

Application should not be carried out when the temperature is below 7°C (45°F) nor when the relative humidity exceeds 90% or the surface to be coated is less than 3°C above the dew point.

ThistleBond 'MA3 Tie-Coat' can be applied by brush, roller or spray.

ThistleBond 'MA3 Tie-Coat' is supplied ready for use for application by brush or roller, but will require thinning for application by spray.

Good quality brushes and mohair rollers are recommended for these methods of application and the **ThistleBond 'MA3 Tie-Coat'** should be applied to give a uniform coating thickness.

Airless Spray Application: Equipment with a 32:1 pump ratio should be used with an input pressure of 60 psi, 13-15 thou spray tips should be used.

Conventional Spray: Most types of equipment are suitable.

A typical set up using conventional spray equipment is:

Pressure pot
Needle set up 1.4-1.8mm

ThistleBond 'MA3 Tie-Coat' does not normally require thinning for spray application. Where thinning is necessary due to climatic conditions then up to 10% **ThistleBond 'SFE Thinners'** may be added by volume.

All equipment must be cleaned **IMMEDIATELY** after use with **ThistleBond 'SFE Thinners'**.

Theoretical Coverage Rate

10 m² / litre at 50 microns dft (108 ft² / litre at 2 mils dft)

Recommended Film Thickness

Wet 100 microns (4 mils)

Dry 50 microns (2 mils)

PHYSICAL CONSTANTS

Mixing Ratio 3 parts resin to 1 part hardener by volume.

Appearance Resin Thixotropic Liquid
Hardener Clear Liquid

Drying & Cure times at 20°C

| | |
|---------------------|----------|
| Usable Life | 8 hours |
| Touch Dry | 4 hours |
| Hard Dry | 16 hours |
| Minimum Overcoating | 16 hours |
| Maximum Overcoating | 3 months |
| Full Cure | 7 days |

Volume Solids 50%

V.O.C. 450 gm/litre

Shelf Life Use within 2 years of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

Food Contact Meets FDA requirements CFR 21.175.300 for food contact.

FOR FURTHER INFORMATION PLEASE CONTACT

PHYSICAL PROPERTIES

| | |
|---|---|
| Abrasion Resistance ASTMD4060 | 70mgm weight loss per 1000 cycles-1kg load-CS17 wheel |
| Impact Resistance BS 3900 E3 | Direct-5mm (0.2 inch) Reverse-2.5mm (0.1 inch) |
| Dry Heat Resistance ASTMD2485 | 100°C (212°F) |
| Direct Pull Adhesion ASTMD4541 | 38kg/cm ² (550psi) (abrasive blasted steel) |
| Salt Fog Resistance ASTMB117 | Excellent, unaffected after 5,000 hours exposure |
| Tensile Shear Adhesion ASTMD1002 | 140kg/cm ² (2000psi) |
| Humidity Resistance BS 3900 Part F2 | Unaffected 5,000 hours exposure |
| Scratch Resistance BS 3900 Part E2 | No Failure 2.5kg (5.5 lbs) load |

HEALTH AND SAFETY

As long as normal good practice is observed **ThistleBond 'MA3 Tie-Coat'** can be safely used.

Protective Gloves should be worn to prevent skin contact.

Vapour masks should be worn for spray application.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

PACKAGING

Supplied in 2.5- litre packs.

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests. Detailed specifications are available on request from the company.



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