

TECHGRIP™ M3

METAL SUBSTRATE PRIMER

DESCRIPTION

TECHGRIP M3 is a low-viscosity, single-component primer used to adhere TECHTHANE® cast and solvented spray elastomers to all types of metals, and 100% solids spray elastomers to aluminum. M3 applies easily by brush, roller, spray, or dipping. It requires no mixing, has no pot life limitations, and provides a long TECHTHANE elastomer application window. When properly used, adhesion levels typically exceed the high strength of the TECHTHANE elastomer.

SUMMARY INFORMATION

PROPERTY

Coverage Per Coat	300 ft ² /gal. (7.3 m ² /L)
Thickness Per Coat	1-2 mils (0.025-0.050 mm)
Typical Coats	2
Maximum Coats	3
Pot Life	indefinite
Primer Recoat Window	1 hr.-30 days @ 75°F (24°C)
TECHTHANE Application Window	1-16 hrs. @ 75°F (24°C)
Equipment Required	brush, roller, spray

PROPERTIES OF LIQUID PRIMER

PROPERTY

Viscosity, Brookfield @ 75°F (24°C)	200 cps/mPs
Volume Solids	20 %
Flash Point, TCC	40°F (4°C)
Color	Clear or Blue
VOC	7.20 lbs./gal. (863 g/L)

APPLICATION INFORMATION

Equipment

BRUSH/ROLLER: Brushes or rollers must be solvent-resistant, short-napped, and able to evenly apply approximately 1-2 mils (0.025-0.050 mm) of primer.

SPRAY: Equipment should have a minimum air:fluid pressure ratio of 15:1, and at 1,500 psi (10.00 MPa) or less offer a good spray pattern with 0.013"-0.020" (0.33-0.50 mm) spray tips. Equipment should have teflon packings, teflon or nylon hoses, and a 100 mesh (0.15 mm) outlet filter. A tip filter may be required for small tips. The spray hose should be conductive and grounded to an earth ground when spraying.

Equipment **MUST** be clean to spray primer. Contaminants such as oil or grease will interfere with the primer bond.

Surface Preparation

TECHGRIP M3 must only be applied to clean, properly prepared metal surfaces. To ensure a clean, well-profiled surface for bonding, a clean/blast/clean process is required as outlined below:

- 1) Grind down corners and other sharp edges to a 1/8-1/4" (3.00-6.00 mm) radius, weld slag and splatter flush with existing surface.
- 2) Detergent wash or steam clean to remove all contaminants such as oil, grease, and salts. Allow to fully dry.

3) Gritblast surface to a 'White Metal' blast (SSPC-SP 5 / NACE 1 / ISO Sa 3) with a 2-4 mil (0.05-0.10 mm) surface profile. Use only a sharp grit such as fractured slag or silica (Black Beauty, 10-14 mesh Ottawa silica, or equal).

Note: Do not gritblast when the relative humidity is greater than 85%, when the temperature of the metal surface is less than 5°F (2.8°C) above the dew point, or when the surface may become wet before the primer is applied.

4) Sweep, vacuum, or air blow (with moisture and oil-free lines only) clean blasting grit and dust using ONLY perfectly-clean brooms or vacuums.

5) Verify surface cleanliness by wiping a clean white cloth wetted with solvent across the surface. If any residue shows on the cloth, repeat solvent cleaning until cloths wipe clean. Solvent-wash surface using ONLY perfectly-clean rags and perfectly-clean, non-filming solvents such as MEK or alcohol. Allow to completely dry.

Application

Apply to all surfaces that will be topcoated with TECHTHANE.

Apply a thin, even coat beginning at the bottom of the item being primed. Per coat thickness should be about 1 mil (0.025 mm). Avoid runs and sags - if applied too thick, brush or wipe excess primer from the surface with a clean brush or lint-free cloth.

If applying two coats of M3, allow a minimum of 60 minutes and maximum of 30 days between each.

If a situation exists where more than three coats of M3 are required, re-gritblast the surface and wipe with MEK prior to applying the next coat of M3.

TECHTHANE® Application Window

TECHGRIP M3 dries to a non-tacky film in approximately 45-60 minutes, at which time the TECHTHANE elastomer can be applied. For use with cast TECHTHANE and 100% solids spray elastomers, take extra care to ensure that TECHGRIP M3 has fully dried prior to casting.

TECHTHANE spray and cast systems can be applied over TECHGRIP M3 up to 16 hours after the last primer coat. TECHTHANE can be applied to the primed surface up to 30 days after being primed, however, the surface must be protected from contamination and a fresh coat of M3 must be applied to the substrate prior to coating with TECHTHANE.

AVAILABILITY

1 gal. (3.8L), 5 gal. (19L), and 55 gal. (200L) sizes, clear or blue coloring.

SHELF LIFE / STORAGE

In unopened containers, TECHGRIP M3 is good for 1 year minimum from date of shipment.

TECHGRIP M3 is packaged in sealed containers under a dry nitrogen blanket. Containers should be kept tightly sealed and stored in a cool, dry area that is protected from direct sunlight. Storage temperature should not exceed 80°F (27°C).

Containers that have been opened should be resealed immediately, and if the primer is not to be used within 24 hours, the container must be purged with dry nitrogen to prevent moisture contamination.

SAFETY

Vapors from TECHGRIP M3 can be harmful. Forced air ventilation must be used for all indoor applications. When working in tanks and other closed vessels, or downstream from spray gun, fresh air breathing equipment should be worn (chemical cartridge masks suitable for organic vapors may be used under certain conditions with adequate ventilation). Protective clothing should be worn at all times. TECHGRIP M3 contains flammable solvents and should be protected from sparks and open flames.

Avoid contact of components with skin and clothing. If contact occurs, wash thoroughly with soap and water. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. If swallowed, do not induce vomiting, call a physician immediately.

Refer to the Material Safety Data Sheet (MSDS) for further information prior to use of this material. MSDS available 24 hrs. at 888-TECHFACTS / (540) 667-2664 (MSDS # 500).

FOR INDUSTRIAL USE ONLY

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