

STEELZ™ MP

Urethane Metal Primer



PRODUCT DESCRIPTION

A one component, Moisture Cured Polyurethane Aluminum Coating. Has excellent adhesion to sound, tightly adherent rusty steel, and other marginally prepared surfaces. This low viscosity, high "wetting" coating undergoes a rapid molecular weight change as it polymerizes into a high molecular weight finish which provides excellent corrosion resistance and abrasion resistance. Its resistance to creeping, undercutting, and blistering is superior to epoxy primers. STEELZ™ MP is also a barrier primer or tie coat to prevent lifting of strong solvent top coats over conventional coatings, and most chemical coatings.

PRODUCT FEATURES

1. Primer for all types of surfaces.
2. Excellent "wetting out" properties over sound, type rusty steel.
3. Fast recoating, 1-2 hours.
4. Cures down to 18°F on dry surfaces.
5. Excellent corrosion resistance, passed based 1,200 hours in salt cabinet.
6. One package. Easy to use.
7. Outstanding abrasion resistance.
8. May be top coated with most generic coatings.
9. Very good weather resistance.
10. High heat, up to 400°F dry.
11. Excellent as a barrier coat over lead coatings.
12. USDA Approved.

TECHNICAL DATA

Colors: aluminum

Finish: low sheen

Volume solids: 51% ± 3%

Coverage: 270-400 sq. Ft. Per gallon

Recoat time @ 75°F and 50% R.H.: 2 hrs. minimum;
6 hrs. maximum

Application: roll, brush or spray

Application temperature: 18°F to 140°F dry

Dry Service Temperature: 400°F (intermittent exposure)

Recommended Dry Film Thickness: 2-3 mils

Mixing ratio: one component, stir well

Shelf life: minimum of 6 months

Thinning: up to 10% with sa-50

Packaging: 1 & 5 gallon cans, quarts

Clean up: s-74 thinner

V.o.c.: 446 GMS/LITERS

PRODUCT USES

Excellent as a universal primer for metal, steel, fiberglass, weathered galvanized metal. Also over old coatings and for polyurethane foam protection.

For use over sound, tightly adherent rust where only wire brush or hand tool cleaning is feasible. For remedial painting of fences, metal buildings, hand and guard rails, pumps, pipelines, grating, and other hard to clean surfaces.

Ideal as a barrier coat over lead based coatings and conventional coatings. The low solvency power of STEELZ-GUARD™ MP enables it to be applied over most type coatings without causing lifting. A test sample should be made to confirm adhesion. Most generic types of chemical or conventional coatings may be applied over STEELZ-GUARD™ MP with excellent adhesion.

Has excellent chemical resistance as a Finish Coat to protect metal surfaces in chemical plants, refineries, pulp and paper mills, waste and water treatment plants, electric generating stations, fertilizer plants, food processing, pharmaceutical, ore processing operations, marine installations, etc.

SURFACE PREPARATION

1. Steel

For best results, sand blast to a SSPC-SP6 “commercial” blast finish. Where blasting is not appropriate, remove all loose rust and mill scale by power wire brushing or hand tool cleaning. A tightly adherent rusty surface is acceptable.

2. Galvanized Steel - Aluminum

- a. New - Brush blast per SSPC-SP7 before applying STEELZ™ MP.
- b. Old, Weathered, or Rusty - Remove all oil, grease, dirt, and other foreign matter. Surface should be reasonably clean, dry, and free of contaminants. Remove all loose rust, etc., as outlined above under steel.

3. Previously Painted Surfaces

Remove all loose, peeling, or blistered paint, and any other surface contaminants. Make sure surface is sound and dry. Apply a test patch of STEELZ™ MP over existing coating to insure good adhesion.

MIXING INSTRUCTIONS

STEELZ™ MP is made ready for use by stirring so that the aluminum pigment is thoroughly dispersed in the resin and a uniform “silver” color is achieved. Do not use a paint shaker. When used over a period of time, stir occasionally to maintain uniform mix. Thinning is not usually necessary. If needed, use up to 10% SA-50 Urethane Reducer which is a water free grade. Always keep partially used containers tightly sealed to prevent air moisture from reacting with the material and forming a tough skin. Skin can be removed and remaining material used.

NOTE: Always wear protective gloves and clothing while mixing and applying STEELZ™ MP. Do not get on skin. STEELZ™ MP is difficult to remove.

APPLICATION PROCEDURE

STEELZ™ MP may be applied by brush, roll, or spray. For rolling, use a ¼” – 3/8” shed resistant phenolic core cover. When brushing, use a bristle brush. For spray it is important that a moisture/oil trap be used on incoming air and that fluid lines be flushed first with an anhydrous solvent (water free) such as S-74. Also, flush every 1-2 hours during use to keep lines clean from material build up. Required equipment is as follows:

1. **Airless Spray** - Use a minimum 20:1 ratio pump with 80-100 psi inbound air. Recommend a .013” - .017” tip. Adjust pressure for proper atomization based on selected tip.
2. **Convention Spray** - Use a dual regulated pot with 15-25 psi fluid pressure and 40-50 psi atomization pressure. A Binks #18 with a 704E tip/air cap is recommended.

When spraying, use a 50% overlapping crosshatch pattern to minimize the occurrence of pinholes. Do not apply to surfaces below 18°F or above 140°F. Do not apply over dew or frost. The surface should be dry and at least 5°F above the dew point.

LIMITATIONS

1. Do not apply over frost, wet or damp surfaces or extremely high humidity conditions.
2. Not recommended as tank lining for constant immersion.
3. Must be recoated the same day.
4. Partially used containers must be reclosed tightly to prevent moisture in air from reacting with material and forming a tough skin. Skin can be removed and remaining material used. Be sure to stir.



RECOAT TIME

Based on temperature of 75°F and 50% R.H. (relative humidity), STEELZ™ MP is tack free in 1-2 hours and may be overcoated in 2-3 hours. Always check for fingernail hardness. For maximum adhesion, recoat no longer than 6 hours at 75°F and 50% R.H. High temperatures and humidity will shorten recoat time. When applying conventional paints (e.g., Alkyds, Silicone, Enamels and Acrylics) STEELZ™ MP must be top coated as soon as STEELZ™ MP has dried. If STEELZ™ MP gets rained on or has condensation form on its surface, a sweep blast is necessary to abrade the surface before applying a topcoat.

CAUTIONS

STEELZ™ MP is flammable. Keep away from all sources of ignition during mixing application and cure. Contains aromatic polyisocyanates. Proper ventilation is necessary when painting indoors or confined areas. Vapors and spray mist may cause eye/skin irritation as well as allergic reactions. Always wear protective clothing, goggles, impervious gloves and use NIOSH approved respirators. For industrial use only. Keep out of reach of children. This product is sold without warranty as to performance expressed or implied. Users are urged to make their own tests to determine the suitability for their particular conditions.

**SEE MATERIAL SAFETY DATA SHEET FOR FULL SAFETY PRECAUTIONS. FOR
PROFESSIONAL AND INDUSTRIAL USE ONLY
KEEP AWAY FROM CHILDREN. NOT FOR RESIDENTIAL USE**