



**Dudick inc.**

Corporate Offices  
1818 Miller Parkway  
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**POLYMER STEEL MG  
(Machine Grade)**

**100% SOLIDS, METAL FILLED  
MACHINEABLE EPOXY PUTTY**

**FEATURES**

“0” VOC  
Good overall chemical resistance.  
Easily machined

**RECOMMENDED APPLICATIONS**

Chutes	Pump Housings
Hoppers	Bearing Housings
Impellers	Fan Blades

**CHEMICAL RESISTANCE**

Inorganic Acids	Salts
Alkali Solutions	Oils
Some Solvents	

**TEMPERATURE LIMITS**

Immersion	250°F*
Dry	Excursions to 450°F

**\*Consult Dudick representative for specific temperature limit for your exposure.**

**COLORS**

Light Gray  
Dark Gray

**PHYSICAL PROPERTIES**

Compressive Strength ASTM D-695	15,500 PSI
Shore D Hardness ASTM D-2240	91
Tensile Adhesion ASTM D-4541	1850-2250 PSI
Tensile Shear Adhesion ASTM D-1002	2250 PSI
VOC ASTM D-3960	0

**SPECIFICATIONS**

**Polymer Steel MG** shall be a 1/16” – 1/2” thick, 100% solids, metal-filled, polymer steel epoxy putty, as manufactured by Dudick, Inc. Material shall be applied by plastic squeegee or trowel in accordance with manufacturer’s recommended practices.

**POLYMER STEEL MG SYSTEM**

**The Polymer Steel MG** is a minimum 1/6” thick metal filled, machineable epoxy putty.

**PACKAGING**

*One Carton Containing:*

- 4 2.5 lb. Units of **Polymer Steel MG (29 cu.in.)**
- 4 Mixing Spatulas
- 4 Plastic Applicators

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

POLYMER STEEL MG	
1/16”	3 ft <sup>2</sup> @ 1/16” thick per 2.5 lb. unit
S-10 Solvent	500 ft <sup>2</sup> /gallon

\*\*Quantities shown are for estimating purposes only. Actual field usage may vary.

**APPLICATION INSTRUCTIONS**

**SURFACE PREPARATION**

**Metal:** Metal surfaces must be abrasive blasted to: White Metal, SSPC SP 5 or NACE #1, minimum 3.0 mil profile, and free of grease or other forms of contamination.

## APPLICATION SPECIFICATIONS

Substrate temperature for metal must be between 50°F and 110°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

## POLYMER STEEL MG MIX RATIO (BY VOLUME)

Base	4 parts
Hardener	1 part

## MIXING AND APPLICATION

Add the Hardener to the Base Component and mix until a uniform consistency is achieved.

Apply to the prepared surface using a plastic squeegee or trowel. Recoat material as soon as it is firm to touch (normally 4-6 hours).

If amine blush (oily film) is present wash with warm water and detergent. Dry surface before recoating. At 70°F, **Polymer Steel MG** can be machined in approximately 2-4 hours after application.

For chemical immersion service allow a minimum 24 hour cure at 75°F. Application of additional heat will shorten cure times.

POT LIFE	
50°F	50 minutes
70°F	40 minutes
90°F	20 minutes

## CLEANING

Use **S-10 Cleaning Solvent, Acetone or MEK** to clean tools and equipment.

## SHIPPING

Refer to Material Safety Data Sheets.

## STORAGE

**Warning:** All Dudick products classified by DOT with either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

All products should be stored in a cool, dry area, away from open flames, sparks, or other hazards.

When properly stored in its original, unopened containers, the **Polymer Steel MG** has a 12-month shelf life. Storage in direct sunlight or excessive heat will reduce working time. *Material is not returnable after 90 days.*

## SAFETY

**M.S.D.S.: Material Safety Data Sheets must always be read before using products.** **Polymer Steel MG** is intended for application by experienced, professional personnel. Dudick, Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Polymer Steel MG** materials are to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. **Polymer Steel MG** liquid can be removed with S-10 Cleaning Solvent, MEK, or lacquer thinner.
- Keep open flames and sparks away from the area where materials are being mixed and applied.



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- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

**NOTE:** Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the manufacture of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's sole obligation under this warranty shall be to replace any material which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABILITY OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.

11/3/16