

FULL METAL JACKET®

FMJ-5100 Machinable Grade Metal Repair

PRODUCT FEATURES & BENEFITS:

FMJ Enterprises specialty coatings are providing the best in corrosion protection, while being safe for our environment and totally user friendly.

FMJ-5100 is a synthetic rebuild, high performance, material for metal parts and surfaces, and is machinable. It has a smooth spreadable consistency which makes it easy to apply. FMJ-5100 is ideal for most steel tank repairs but is also well suited to rebuilding tube sheets, shafts, bearing housings, etc.

- 100% Solids, No VOCs
- Excellent UV stability
- Excellent impact resistance & corrosion protection
- Zero shrinkage

SURFACE PREP:

Surfaces must be prepped by removing all surface contaminants and any loose materials then roughened by using a grinder, needle gun or abrasive blasting to obtain maximum adhesion.

MIXING & APPLICATION:

FMJ-5100 is a two component material mixed 3:1 by volume. The two components should be thoroughly mixed until completely streak free. When using reinforcement cloth the cloth should be embedded with FMJ-5100 then applied to repair then additional product applied over the surface.

TOP-COATING & JOINING ADJACENT SECTIONS:

If the compound is to be coated, apply the coating within the re-coat window (see table). If this is not possible, allow the compound to cure, then brush-blast, wire-brush or sand to create a mechanical profile on the surface before coating.

When it is necessary to join multiple sections of the compound to create a continuous protective layer over a large area, do not attempt to feather and overlap adjoining sections. If adjoining sections cannot be applied within the re-coat window (see table below), continue the full thickness of the compound up to the joint between sections. Allow the first section to cure, and then create a mechanical profile, using one of the means listed above, on the edge that will be joined to the next section to ensure a satisfactory bond.

PHYSICAL PROPERTIES:

Color	Dark Grey
Coverage per 1 kg (Theoretical)	30 cu/in per unit
Mix Ratio by Volume	3:1 (Resin: Hardener)
Flash Point	>250°F (121°C)
Compressive Strength	ASTM D695 / 17950 psi
Flexural Strength	ASTM D790 / 8490
Hardness	ASTM D785 / 90
Pull-Off Adhesion Test ASTM D 4541	Minimum adhesion is 2850 psi
Coefficient of Thermal Expansion (10-6/per °F)	1.1
Thermal Stability (weight loss after 48 hours @ 300 °F)	0.0003 grams
Specific Gravity	Resin: 2.12 Hardener: 1.59
Volatile Organic Compounds (VOC)	0 grams/liter
Weight per kg	2.2 lbs

CURE TIME (68°F):

Working Time	30 minutes
Re-coat Window	1 ½ - 2 hours
Machining	2 hours
Mechanical	16 hours
Chemical Service	5 days

"Put A Jacket On It"®

FMJ-5100 Machinable Grade Metal Repair

NOTE: Mix resin and hardener on provided mixing board. Do not leave in a large pile. Exotherm heat created during the curing process will considerably shorten the pot life. Spread material out on mixing board.

SERVICE TEMPERATURE:

Dry Service	490°F (255°C)
Spill/Splash	293°F (145°C)
Immersion Service*	194°F (90°C)

*Immersion with solvents, mineral acids, or alkalines, or if over 150°F, contact Distributor.

CHEMICAL RESISTANCE:

- Acetic Acid (up to 10%)
- Ammonium Hydroxide*
- Aromatic & Aliphatic Solvents
- Black Liquor
- Butyl Acetate
- Butyl Carbitol
- Chlorides (Most)
- Hydrogen Sulfide
- Isopropyl Alcohol
- Mineral Acids
- Nitric Acid (up to 45%)

- Organic Acids (Mild)
- Phosphates (Most)
- Phosphoric Acid
- Potassium Hydroxide*
- Sodium Hydroxide*
- Sulfides (Most)
- Sulfuric Acid (up to 80%)
- 1,1,1-Trichloromethane
- Urea Solutions
- White Liquor

*Ambient temperature only

ORDERING INFORMATION:

For additional information, prices, or to place an order, please contact your Full Metal Jacket sales representative.

FMJ Enterprises, LLC

Tel: 225-313-1030

Email: support@fmjenterprises.com

Web site: www.fmjenterprises.com

All statements, technical information, and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied. Sellers and manufacturers only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for the intended use, and user assumes all risk and liability whatsoever therewith. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

"Put A Jacket On It"®