**DESCRIPTION**

FULL METAL JACKET™ is an economical state-of-the-art, pure polyurea thermoplastic elastomer. It is designed for processing through medium pressure, heated, plural--proportioning equipment. FULL METAL JACKET™ provides a resilient, tough, abrasion resistant monolithic membrane with water and chemical resistance. This product is ideal as a protective liner for pick up truck beds, truck trailers, and similar applications.

**FEATURES**

- 100% solids. No solvents. No VOCs.
- Fast-set: handle in one minute or less.
- It can be sprayed in temperatures as low as 40°F (4°C).
- High dry temperature stability to 250°F (121 °C) with intermittent temperatures to 300°F (148 °C).
- Fast gel time allows high build on overhead and vertical surfaces.

**RECOMMENDED USES**

- Bed liners for pickups, trailers, etc.
- Abrasion resistant coatings for dump trucks
- Automotive undercoating material
- Theatrical and themed EPS props protection
- Encapsulation of flotation foams
- Temporary building repair
- Rust encapsulation on barges and tanks
- Sound deadening material
- Low cost rigid mold making material
- Non-potable water containment applications
- FRP alternative for structural molded parts
- Horse trailer or animal transportation walls and floors

**COLORS**

FULL METAL JACKET™ is available in SPI high pigment Black. Custom colors will be quoted upon request. It should be noted that FULL METAL JACKET™ is an aromatic polyurea; therefore, as with all aromatic, color change and superficial oxidation will occur.

Aliphatic urethane, polyurea, and other suitable aliphatic topcoats can be used when long-term color stability and increased longevity in full sun exposure are of critical importance.

**WET PROPERTIES @ 77°F (25°C)**

- **Solids by Volume**: 100%
- **Solids by Weight**: 100%
- **Volatile Organic Compounds**: 0 lbs/gal (0g/l)
- **Theoretical Coverage DFT**: 100 sq. ft. @ 16mils/gal
- **Weight per gallon (approx.)**: 8.55 lbs. (3.87 kg)
- **Number of Coats**: 1-2
- **Mix Ratio**: 1 "A": 1 "B"
- **Viscosity (cps) @ 77° F (25 °C)**
  - A: 500 approx.
  - B: 550 approx.
- **Shelf Life Unopened Containers**
  - @ 60-90°F (15-32°C) Six months

Minimum material/container temperature for spray application is 70°F (21 °C).

**DRY PROPERTIES @ 25 mils (0.63 mm)**

- **Tensile Strength**: ASTM D 412 2800 psi (19.5 mpa)
- **Elongation**: 360%
- **Hardness (Shore D)**: 58

**DRY PROPERTIES @ 1/8 inch (3.1 mm) with texture**

- **Tensile Strength**: ASTM D 638 1950 psi (13.5 mpa)
- **Elongation**: 190%
- **Hardness (Shore D)**: 59
- **100% Modulus**: ASTM D 412 1620 psi (11.2 mpa)
- **300% Modulus**: ASTM D 412 1925 psi (13 mpa)
- **Tear Resistance**: ASTM D 624 470 PLI (82 KN/m)
- **Service Temperature**: -60°F – 300°F (-50°C - 148°C)
- **Abrasion Resistance**: ASTM D4060 1 kg. 1000 rev. H-22 wheel 62 mg. lost
- **Weatherability QUV**: No evidence after 3000 hrs.

*All cured film properties are approximate since processing parameters, ad-mixture types, and quantities change physical properties of the cured elastomer. All samples for above tests were force cured or aged for more than three weeks. It is recommended that the user perform their own independent testing.

**CURING SCHEDULE**

- **Gel**: ±8 sec.
- **Tack Free**: ±12 -18 sec.
- **Post Cure****: 12 hours
- **Recoat**: 0-12 hours

**GENERAL APPLICATION INSTRUCTIONS**

Apply FULL METAL JACKET™ only to clean, dry, sound surfaces free of loose particles or other foreign matter. A primer may be required depending on type and/or condition of the substrate. Consult technical service personnel for specific primer recommendations and substrate preparation procedures.
FULL METAL JACKET™ can be sprayed over a broad range of ambient and substrate temperatures. Contact technical service personnel for specific recommendations, pricing, and availability of spray and auxiliary equipment.

It is recommended that FULL METAL JACKET™ be sprayed in multi-directional (north-south/east-west) passes to ensure uniform thickness. The polyol “B” component must be thoroughly power mixed each day, prior to use. Contact a SPI technician regarding proper mixing equipment.

Follow the instructions attached to “A” and “B” containers.

**RECOMMENDED EQUIPMENT AND SETTINGS**

- Pre-heater temperature should be at 160-170°F (71-76 °C).
- Hose temperature should be at 160 -170°F (71-76°C). A hose thermometer inserted under the insulation near the gun should read a minimum of 145-155°F (63-68°C).
- Physical properties will be enhanced when sprayed at higher pressure (3000 psi or more) (20.8mpa), utilizing an impingement mix gun such as MP Fusion or GX7-DI.

**MIXING AND THINNING**

Using any thinner may adversely affect product performance.

**GENERAL SAFETY, TOXICITY & HEALTH DATA**

Material Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the M.S.D.S. Material Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the M.S.D.S. The information herein is believed to be reliable, but unknown risks may be present.

**INGESTION:** Do not take internally. It is believed that ingestion of polymeric isocyanates would not be fatal to humans, but may cause inflammation of mouth and stomach tissue.

**LIMITATIONS**

- This product is for professional use only.
- FULL METAL JACKET™ must be stored at temperatures between 60° F to 90° F (15 °C to 30 °C).
- Liquid temperature in drums during application 70°F (21°C) – 100°F (38°C).
- Apply FULL METAL JACKET™ when surface and air temperatures are above 40°F (5°C) and rising, and 7°F (-13°C) above dew point.
- Minimum material/container temperature for spray application is 70°F (21 °C).
- Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected. CO2 created pressure can develop. Do not attempt to use contaminated material.
- Undried air exposed to liquid components will reduce physical properties of the cured coating.

**Note:** The material supplied is two components (Component “A”/Component “B”) used to formulate FULL METAL JACKET™. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components.

**WARRANTY & DISCLAIMER**

Specialty Products, Inc. has no role in the manufacture of the finished polymer other than to supply its two components. It is vital that the person applying this product understands the product, and is fully trained and certified in the use of plural-component equipment.

Specialty Products, Inc., an Alaska corporation, warrants only that the two components of this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product are dependent upon the proper mixture and application of the components by the applicator. There are no warranties that extend beyond the description on the face of this instrument.

Failure to apply the product within the parameters stated on this document shall void the warranty.

SPECIALTY PRODUCTS, INC. MAKES NO WARRANTY OF MERCHANTABILITY OF THE PRODUCT OR OF FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE.

Specialty Products, Inc. makes no warranty as to the quality of any product modified, supplemented, tinted, or altered in any way after it leaves the manufacturing plant.

Specialty Products, Inc. does not warrant that this product is suitable for use as a liner for potable water containers. Use of this product in a potable water container could be hazardous to health if it is improperly processed or applied.

The liability of Specialty Products, Inc. for any nonconformity of the product to its technical specifications shall be limited to replacement of the product. The sole exclusive remedy of buyer, which is to have Specialty Products, Inc. replace any nonconforming product at no cost to buyer, is conditioned upon buyer notifying Specialty Products, Inc. or its distributor in writing of such defect within thirty days of the discovery of such defect.

Specialty Products, Inc. shall not be liable for any direct, incidental, or consequential damages resulting from any breach of warranty.

The data presented herein is intended for professional applicators or those persons who purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

The aforementioned data on this product is to be used as a guide and is subject to change without notice.

The information herein is believed to be reliable, but unknown risks may be present.

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Accordingly, the buyer assumes all risks whatsoever as to the use of these materials and buyer’s exclusive remedy as to any breach of warranty, negligence, or other claim shall be limited to the purchase price of the materials. Failure to adhere to any recommended procedures shall relieve Specialty Products, Inc. of all liability with respect to the materials and the use thereof.

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