

ULTRA-TUFF 2800-FR

FAST-SET POLYUREA BASE COATING

ULTRA-TUFF 2800-FR is a 100% solids, fast-set, two-component, elastomeric aromatic, urethane protective base coat. Ultra-Tuff 2800-FR is recommended as a durable, high performance membrane covering for spray polyurethane foam roofing and may be used as a vapor barrier.

Ultra-Tuff 2800-FR adheres well to most surfaces including spray-applied elastomers or polyisocyanurate insulations. Ultra-Tuff 2800-FR should be top-coated within six hours of application with an aliphatic polyurethane, silicone or acrylic coating for fire classification.

RECOMMENDED USES

- Polyurethane Foam
- Roof Restoration
- Cold Storage
- Metal

PACKAGING

10-gallon kit: A-Side 5 gallon (47 lbs net) and B-Side 5 gallons (42 lbs net) pail

110-gallon kit: A-Side 55 gallon (517 lbs net) and B-Side 55 gallon (460 lbs net) drum

COLORS

Light Gray or Tan. Custom colors are available upon request. Color Packs, when used, must be added to Side-B.

Due to its aromatic composition, Ultra-Tuff 2800-FR will tend to yellow, darken in color, become flat after exposure to UV light.

PHYSICAL PROPERTIES (BASED ON DRAW DOWN FILM)

Property	ASTM-Test Method	Value
Total Solids by Volume ASTM D2697	ASTM D2697	100%
Total Solids by Weight ASTM D-2369	ASTM D2369	100%
Mix Ratio by Volume		1 : 1
Pot Life @150-160°F (65.5-71°C), 50% RH		4-8 Seconds
Flash Point	ASTM D56	> 300°F (148°C)
Elongation	ASTM D412	350% ± 50%
Tensile Strength	ASTM D412	3000 ± 300 psi
Tear Resistance	ASTM D624	500 ± 50 pli
Hardness	ASTM D2240	50D ± 5
High Temperature Resistance, ASTM D-573 Continuous	ASTM D-573	>300°F (149°C)
Low Temperature Flexibility	ASTM D-2136 Continuous	Pass
Service Temperature - Dry		-40°F to 250°F (-40°C to 121°C)

The information contained herein is for purposes of identifying the product and does not constitute a warranty that the product will conform to that description. Product specifications and performance will vary depending on application methodologies, raw materials and other factors.

REQUIREMENTS

Ultra-Tuff 2800-FR is a two component spray polyurea which should be applied only by trained or manufacturer-approved roofing experts familiar with the properties of this material.

EQUIPMENT

Ultra-Tuff 2800-FR should be applied using a plural component (1:1 ratio), heated, high pressure (2500 psi) spray mixing equipment like Graco's Reactor series with Fusion gun or other equivalent machine may be used.

COVERAGE RATE	
Property	Value
Coverage	1 mil thickness is one gallon per 1600 sqft.
Performance, Vapor Retarder, Class II	35 to 50 DFT mils
Performance, Vapor Retarder, Class I	Minimum 80 DFT mils
Tack Free Time (substrate dependent)	45-60 Seconds
Recoat Time	0-6 Hours
Final Cure	7 days
Service Temperature - Dry	-10°F to 200°F (-23°C to 93°C)
Service Temperature - Wet	40°F to 120°F (4.44°C to 48.89°C)
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APPLICATION

Ultra-Tuff 2800-FR Side-B must be power mixed prior to application. Ultra-Tuff 2800-FR coating is very rapid setting, aromatic polyurea base coat which should be applied over primed metal surfaces or directly to spray polyurethane foam. Ultra-Tuff 2800-FR can be applied at a rate of 2.0 gallons per pass for sloped surfaces. For applications requiring maximum ultraviolet resistance, Ultra-Tuff 2800-FR must be topcoated.

No primer is necessary for sprayed urethane foams. Ultra-Tuff 2800-FR can be recoated when set to touch or has cured. Dry sufficiently to allow foot traffic.

PERSONAL PROTECTIVE EQUIPMENT

Since the Ultra-Tuff 2800-FR is atomized into a very fine particle distribution during spray application, it is essential that maximum effort is made to protect the spray mechanic and others near the workplace from undue exposure. Side-A Ultra-Tuff 2800-FR is polymeric isocyanate and, as such, can be very sensitizing, particularly from the standpoint of VAPOR INHALATION. Some other ingredients may be sensitizing from the stand-point of SKIN CONTACT OR EYE CONTACT.

JOB-SITE PROTECTION

Overspray from Ultra-Tuff 2800-FR can carry considerable distances and attention should be given to the following:

1. Post warning signs a minimum of 100 feet from the work area.
2. Cover all intake vents near the work area.
3. Minimize or exclude all personnel not directly involved with the spray application.
4. No welding, smoking or open flames.
5. Have CO₂ or other dry chemical fire extinguisher available at the jobsite.
6. Provide adequate ventilation.

SHELF LIFE AND STORAGE

Ultra-Tuff 2800-FR has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C). Keep containers closed and store in a dry, cool place away from direct sunlight, heat, sparks, open flame, and moisture.

FREIGHT CLASSIFICATION

Liquid Plastic Material - NOIBN

HEALTH AND SAFETY

GCMC is committed to the health and safety of our customers. GCMC products shall only be installed by certified contractors. Applicators are required to follow all proper handling, safety and installation procedures. Safety Data Sheets (SDS) are available on this material. Any individual who may come in contact with these products should read and understand the SDS. Avoid breathing of vapor or spray mist. Care should be taken to exclude all personnel not directly involved with the spray application. Ultra-Tuff 2800-FR should not be applied when the wind is of sufficient velocity to cause overspray of adjacent areas, buildings or people.

VAPOR INHALATION

The best form of protection against organic solvents or potentially sensitizing vapors in the workplace is a fresh air supply. Numerous manufacturers, including the 3M Company and MSA, make full face fresh air masks. For maximum protection, we recommend use of NIOSH/MSHA approved self-contained breathing apparatus with a full-face piece operated in a positive pressure mode. In well-ventilated application conditions, the use of Type C organic vapor cartridge respirators is acceptable. Effects of overexposure to vapor are characterized by nasal and respiratory irritation, dizziness, nausea, headache, fatigue, possible unconsciousness or even asphyxiation. Vapor inhalation problems are characterized by coughing, shortening of breath and tightness in the chest. Anyone exhibiting these types of symptoms should be immediately removed from the workplace and administered oxygen or fresh air. If the condition is prolonged or extreme, SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.

ULTRA-TUFF 2800

FAST-SET POLYUREA ELASTOMER

SKIN CONTACT

To prevent excessive skin contact with the sprayed product, we recommend use of fabric coveralls and neoprene or other resistant gloves. Skin contact with liquid components can result in a rash or other irritation. Wash the affected skin area with water. Wipe residual liquid from the skin with a clean cloth, then wipe the affected area with 30% solution of rubbing alcohol. Follow the alcohol wipe with repeated washings with soap and water. If a rash or other irritation develops, see a physician.

EYE CONTACT

Wear a full-face mask or OSHA-approved protective goggles. Eye Contact with liquid or sprayed components can result in corneal burns or abrasions. Upon exposure, eyes should be flushed with water for an extensive period. **SUMMON EMERGENCY TRAINED MEDICAL ATTENTION IMMEDIATELY.**

TECHNICAL SERVICES

Additional information, such as brochures, technical assistance, and management services are also available from a General Coatings Manufacturing Corp. Technical Consultant.

LIMITED WARRANTY. We warrant our Products to be free of manufacturing defects and to comply with the Product's current published physical properties when tested under controlled conditions. Our sole responsibility is limited to replacement of that portion of any Products found to be defective at the time of manufacture. There are no other warranties of any nature whatsoever, whether expressed or implied, including an express disclaimer of any warranty of merchantability or fitness for a particular purpose. Further, we disclaim any liability for damages of any type, however caused, including remote, consequential damages, or special damages resulting from any theory of liability, whether based on tort, negligence, or strict liability. We disclaim responsibility for any claims of intellectual property infringement through use of our Products in any manner. Where Products are used as a waterproofing membrane or floor coating, no warranty or guarantee is issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, abnormal wear and tear, or improper application by the applicator. Damage caused by abuse, neglect, lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded. In all instances and as a pre-condition to any available remedy, we reserve the right to conduct sample testing and performance analysis on any materials claimed to be defective, performed prior to any repairs being made by owner, general contractor, or applicator. Our limited warranty is void if repairs have been made or attempted, or if the claimed defect has been adulterated prior to our ability to conduct a formal investigative analysis.

DISCLAIMER: Please read all information in the general guidelines, technical data sheets, application guide and safety data sheets (SDS) before applying material. Products are for professional use only and should only be applied by professionals who have prior experience with our Products or have undergone specific training in their proper application. Published technical data and instructions are subject to change without notice. Contact your local representative or visit our website for current technical data and instructions. All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of these tests are not guaranteed and are not to be construed as a warranty, either expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with any product. It is the user's responsibility to satisfy himself, by his own information and tests, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his own use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones that may exist. We are not liable to the purchaser, end-user, or any third party for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, our Products. Recommendations or statements, whether verbal or in writing, shall not be binding upon us unless in writing and signed by one of our authorized corporate officers. Technical and application information is provided for establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and we make no claim that these tests or any other tests, accurately represent all environments. We are not responsible for typographical errors. © General Coatings Manufacturing Corporation. All Rights Reserved. Revision ULTRA-TUFF 2800_08102023EA