

ULTRA-SHIELD 3000

ALIPHATIC POLYURETHANE ELASTOMER

DESCRIPTION

ULTRA-SHIELD 3000 is a high-solids, high build two-component aliphatic polyurethane elastomeric coating. ULTRA-SHIELD 3000 is intended for use as a protective membrane coating for construction surfaces requiring outstanding UV weathering, color and gloss retention, soil resistance, and chemical and abrasion resistance.

USES

ULTRA-SHIELD 3000 is the protective coating of choice for pedestrian or traffic decks and polyurethane foam insulation when requiring maximum resistance to weathering or chemical or physical elements. ULTRA-SHIELD 3000 is listed and classified by Underwriters Laboratories, Inc. UL 790 Class A as an integral component to numerous roof deck and construction assemblies, File #14330.

PRIMERS

ULTRA-SHIELD 3000 requires no primer when applied to polyurethane or polyurea coatings or polyurethane foam insulation. Consult manufacturer before application to other construction surfaces.

STORAGE

ULTRA-SHIELD 3000 has a minimum shelf life of 6 months when stored at temperatures between 40° F and 100° F.

APPLICATION

ULTRA-SHIELD 3000 "B" Component must be power mixed prior to application. ULTRA-SHIELD 3000 may be applied using plural spray equipment or can be batch mixed 1 to 1 by volume and applied through high pressure airless spray equipment. If thinning is required, consult General Coatings Manufacturing Corp. ULTRA-SHIELD 3000 has a 30-45 minute pot life when mixed in 5 gallon batch sizes at 75°F. Higher temperatures may shorten the pot life. ULTRA-SHIELD 3000 standard cure will dry to touch in 4 hours at 75°F 50% relative humidity and will support light foot traffic in 8-24 hours depending on ambient conditions.

RECOMMENDED THICKNESS

ULTRA-SHIELD 3000 should be applied at a minimum of 10 dry mils when used as a protective top coat for walk decks, traffic decks or polyurethane foam insulation.

WEATHERING & ULTRA-VIOLET RESISTANCE

After 6,000 hours QUV accelerated weathering, according to ASTM G53, Atlas carbon arc, ASTM D822, and Atlas Xenon, ASTM G26, ULTRA-SHIELD 3000 had excellent appearance with no chalking, cracking, checking, delamination or loss of flexibility.



Nominal Properties

PHYSICAL PROPERTY	VALUE	TEST METHOD
Solids by Volume	75%	ASTM D-2697
Solids by Weight	82%	ASTM D-2369
Flash Point	79°	ASTM D-56
Elongation	450% +/- 100	ASTM D-412
Tensile Strength	2200 PSI +/- 100	ASTM D-412
Tear Resistance	375 PLI +/- 50	ASTM D-624
Permanent Set @ Break	9%	ASTM D-412
Hardness Shore A	90	ASTM D-2240
Water Absorption	1.5%	ASTM D-471
Permeability US	.45	ASTM E-96(B)
Low Temperature Flexibility	Pass	ASTM D-1737
Abrasion Resistance	29 Mg Loss	ASTM C-501
Volatile Organic Compound	219 grams/liter	

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.

PROTECTION OF THE WORKPLACE

The overspray from ULTRA-SHIELD 3000 can carry considerable distances and care should be given to the following:

1. Post warning signs a minimum of 100 ft. 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.

FLAMMABILITY

Flash point < 80°F for components A and B. DOT freight classification: Paint Flammable Liquid UN 1263.

CONSISTENCY

ULTRA-SHIELD 3000 component "A" is a moderate viscosity (2,000-3,000 cps) light amber colored solution prepolymer. Component "B" is a thixotropic liquid with a viscosity of 6,000-12,000 cps

COLOR

Standard colors are: White
 Light Grey

ADHESION

ULTRA-SHIELD 3000 adheres well to most surfaces including spray-applied polyurethane and polyurea elastomers or polyisocyanurate insulations and other construction surfaces. ULTRA-SHIELD 3000 can be recoated when set to touch or has cured. Dry sufficiently to allow foot traffic.

Safety, Health & Toxicity Data

A Material Safety Data Sheet (MSDS) has been prepared on this coating. All personnel who will come in contact with the product should read and understand the MSDS.

PROTECTIVE EQUIPMENT

Since the coating 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. This coating contains polymeric isocyanate (MDI) and, as such, can be very sensitizing, particularly from the standpoint of vapor inhalation. Some other ingredients in the coating may be sensitizing from the standpoint of skin contact or eye contact.

FIRST AID CONSIDERATIONS

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.

CONDITIONS TO AVOID

Avoid open flame or spark sources. Avoid excess heat. Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, or other ignition sources at locations distant from the material handling point. Never use welding or cutting torch on or near drum (even if empty) because product (residue is sufficient hazard) can ignite explosively. In case of fire, use CO₂, steam, dry chemicals, or water fog. Do not use water.

TOXICITY

Contains solvents which require normal precautions in handling materials of this type. Part A contains diisocyanate which can be toxic if inhaled as particulate matter.

VAPOR INHALATION

The recommended form of protection against isocyanate or other 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/MESA 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 may be acceptable.

Effects of over-exposure to vapor are characterized by nasal and respiratory irritation, dizziness, nausea, headache, fatigue, unconsciousness, or even asphyxiation.

If ingested and victim is conscious, give large amounts of water or milk to drink. Obtain medical attention immediately.

SKINCONTACT

To prevent skin contact with the sprayed product, we recommend the use of fabric coveralls and neoprene or other chemically resistant gloves.

Skin contact with liquid components can result in a rash or other irritation. Wash any affected skin area with water. Wipe residual from the skin with a clean cloth, then wipe affected area with a 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.

EYECONTACT

Wear a full-face mask or OSHA-approved protective goggles.

Eye contact with liquid or spray 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.

The information herein is believed to be reliable, but unknown risks may be present. General Coatings Manufacturing Corp. warrants only that the material shall be of merchantable quality; this warranty is in lieu of all other written or unwritten, expressed or implied warranties, and General Coatings Manufacturing Corp. expressly disclaims any warranty for a particular purpose, or freedom from patent infringement. Accordingly, Buyer assumes all risks whatsoever as to the use of these materials and Buyer's exclusive remedy as to any breach of warranty or negligence claim shall be limited to the purchase price of the materials. Failure to strictly adhere to recommended procedure shall relieve General Coatings Manufacturing Corp. of all liability with respect to the materials or use thereof.

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