

DESCRIPTION

AMP™ 100 UB spray-applied, plural-component polyurea is a unique synergy of aliphatic and aromatic polymer chemistry. **AMP™ 100 UB** pure polyurea is formulated using amine terminated polyether resins, amine chain extenders, and aliphatic and aromatic prepolymers. For many applications this highly cross-linked elastomer offers an economical alternative to pure aliphatic protective coatings. **AMP™ 100 UB** can be used as a stand-alone product or as a topcoat over aromatic polyureas, polyurethane's, or hybrids.

FEATURES

- Superior color stability and gloss retention compared to aromatic elastomers.
- Outstanding abrasion resistance.
- Excellent adhesion.
- Extended gel time for better flow-out providing a smooth more uniform finish.
- Forms a monolithic membrane that can be handled and walked on within two minutes or less from the time it's sprayed.
- 100% solids, no solvents, and zero VOCs.
- High build up to any thickness in one application.
- High dry temperature stability with a dry working temperature up to 200°F (93°C) with intermittent temperatures up to 250°F (121°C).
- Compliant with FDA/USDA for incidental food contact.

RECOMMENDED USES

- Urethane foam roofing.
- Topcoat.
- Water features.
- Tanks, pond, and lagoon containment lining.
- Walls, ceilings for meat, dairy processing plants.
- Aquatic animal, water ride basins and animal habitats.
- Exposed signs and displays.
- Truck beds and undercarriage liners .
- EIFS base coat replacement.
- Encapsulation of structural steel to protect and retard rust formation.
- Encapsulation of lead, low level radioactivity, and asbestos contaminated surfaces.

COLORS

AMP™ 100 UB is available in SPI standard colors (Sand, Medium Grey, and Black). Custom colors available upon request. Note: In continuous full-light exposure, white or very light colors will yellow over a period of time. AMP™ 100 UB is available in a high-pigment, UV inhibited formulation for stand-alone applications, such as roofs and containment liners. Aliphatic urethane and other suitable topcoats can be used where long-term color stability and increased longevity in full sun exposure are of critical importance.

DRY PROPERTIES*

@ 34 mils (0.8 mm)	
Tensile Strength ASTM D 638	± 2,625 psi (18.25 mpa)
Elongation ASTM D638	± 345%
Hardness (Shore A) ASTM D2240	96 ± 5
Hardness (Shore D) ASTM D2240-81	53 ± 5
100% Modulus ASTM D412	1,100 psi (8 mpa) ± 5%
300% Modulus ASTM D412	1,738 psi (12 mpa) ± 5%
Tear Resistance ASTM D624	519 PLI (91 KN/m)

*All cured film properties are approximate since processing parameter, ad-mixture types, and quantities change physical properties of the cured elastomer. All samples for above tests were force cured 48 hours or aged for more than three weeks. It is recommended that the user perform their own independent testing.

PACKAGING

This product sold in standard 110 gallon drum and 550 gallon tote sets. Available in other container sizes, contact sales representative for further information. Non-standard containers may require a longer lead time.

Note: Currently, this product is manufactured exclusively in our Lakewood, Washington facility. Therefore, please allow additional transit time and additional transportation charges to certain geographic areas.

CURING SCHEDULE

Gel	± 6 sec
Tack Free	± 10 sec
Post Cure**	24 hour
Recoat	0 min - 12 hours

**Complete polymerization to achieve final strength can take up to several days or weeks, depending on a variety of conditions or product type. The samples for tests were sprayed with Graco HXP3 @ 2500 psi dynamic (17 mpa). Primaries/Hose Heat 170°F (77°C), MP Fusion gun with 29/29 40 mixing chamber. Test results from SPI.

WET PROPERTIES

Solids by Volume	100%
Solids by Weight	100%
Volatile Organic Compounds	0 lbs/gal (0 g/l)
Theoretical Coverage DFT	100 sq. ft. @ 16 mils/gal
Weight per gallon (approx.)	8.75 lbs. (3.98 kg)
Number of coats	1 or more
Mix Ratio (by volume)	1 "A" : 1 "B"
Viscosity (cps) @77°F (25°C)	A: 1300 ± 100 cps B: 600 ± 100 cps
Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)	Six Months

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

TEST INFORMATION

ABRASION RESISTANCE ASTM D4060 1000 g - 1000 cycles	H-18 wheel	20.5 mg loss
	H-10 wheel	33 mg loss
	H-22 wheel	46.4 mg loss
	CS-17 wheel	19.1 mg loss
WEATHERABILITY (black) 3000 hours (QUV)	no evidence of failure	

MIXING & THINNING

Thoroughly agitate the "B" component of this product prior to application. Use a SPI folding blade mixer, or equivalent equipment approved by SPI. Install mixer through the extra 2" bung hole provided on all "B" drums. Care must be taken not to cross contaminate the individual components with the mixing equipment. Thinning is not required. Using any thinner may adversely affect product performance.

GENERAL APPLICATION INSTRUCTIONS

Apply AMP™ 100 UB to only clean, dry, sound surfaces free of loose particles or other foreign matter. A primer may be required; subject to type and condition of the substrate.

NOTE: In the event that the use of a primer is not practical, SPI AE-4 ad-mixture may be used with the AMP™ 100 UB on most properly prepared inorganic substrates to enhance adhesion. AMP™ 100 UB can be sprayed over a broad range of ambient temperatures. Consult technical service for specific recommendations. It is recommended that AMP™ 100 UB 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 technical service personnel for specific recommendations and pricing. As well as the availability of spray and auxiliary equipment.

It is recommended that oxidized surfaces be power washed with 2500—3500 psi water pressure to achieve maximum adhesion of AMP™ 100 UB. If there is a possibility of surface contamination, scrub with a solution of 1/4 tsp. Dawn detergent plus 1 tbsp. of vinegar, per 1 gallon of warm water, followed by a thorough water rinse. If oxidation on existing surface is unable to be removed with pressure washing, mechanical abrading may be required.

RECOMMENDED EQUIPMENT SETTINGS

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 2500 psi (17 mpa) dynamic pressure will adequately spray AMP-100 UB™. These include Reactor HXP3, HXP2, EXP2, H-25, Graco 20/35, 20/35 Pro, H-3500, HV-20/35, PMC GH-25, GH-40, PHX-25, and PXH-40. Gun models include Graco Fusion MP, Gap Pro, Glass Craft P2, P2 Elite, P2 Elite "C", GX7-DI, and GX-8 Pro. Other application equipment may be acceptable depending on product and application. Contact SPI technical service for specifics.
- 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), utilizing an impingement mix gun such as MP Fusion or GX7-DI gun

LIMITATIONS

This product is for professional use only.

This product must be stored at temperatures between 60° - 90°F (15° - 30°C).

Apply AMP™ 100 UB when surface and air temperatures are above 40°F (5°C) and the surface temperature is at least 5°F (3°C) above dew point and rising.

Liquid temperature in drums during application 70° F (21°C) – 100°F (38°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.

Note: The material supplied is a two component system

(Component "A"/Component "B") which is used to formulate this product. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components.

GENERAL SAFETY, TOXICITY, & HEALTH

Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the S.D.S. **CHEMTREC EMERGENCY NUMBER 1-800-424-9300**

WARNING: Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact with the liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and exposed areas.

CLEAN UP: Use DPM, NMP, and Polyclean.

EYE PROTECTION: Safety eye wear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield.

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed; the risks involved, and should be approved by an industrial hygiene specialist before handling this product. Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION: Harmful if inhaled and may cause allergy or asthma symptoms. Use a respirator approved for isocyanates and organic vapors. If you are not sure, or not able to monitor levels, or if you are spraying in an enclosed/indoor area, use MSHA/NIOSH approved supplied air respirator. Consider the application and environmental concentrations when deciding if additional protective measures are necessary.

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.

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 under the condition that the buyer notifies 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. Specialty Products, Inc. makes no warranties, expressed or implied, including patent warranties or warranties of merchantability or fitness of use, with respect to products or information set forth herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without a license from the owner of the patent. 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.



SEAMLESS SOLUTIONS FOR OVER 40 YEARS

SPI The Single Source Solution Since 1974
Serving the Plural-Component Industry

Product & Equipment Technical Assistance
24 hours - 7 days a week 800 627 0773

CONTACT US

2410 104th St. C. S. Suite D, Lakewood, WA 98499

WWW.SPECIALTY-PRODUCTS.COM

1 800 627 0773 FAX 253 588 7196

info@specialty-products.com



**"Proudly Manufactured
in the USA"**