



Hard Cap-100™

CLEAR ALIPHATIC POLYUREA

Revised 01-21-14

DESCRIPTION

HARD CAP-100™ is a 100% solids (0 VOCs) 1:1 ratio plural-aliphatic polyurea. It is available in White and several standard colors,* as well as clear.

HARD CAP-100™ is an ideal choice when a durable high build coating for interior or exterior applications with excellent color stability and gloss retention is required.

HARD CAP-100™ provides a flexible, resilient, tough, monolithic membrane with good water and chemical resistance.

*Custom colors available upon request.

FEATURES

- 100% solids. No solvents. No VOCs.
- Extended tack time to allow deep surface penetration as well as a smooth uniform finish.
- High temperature stability up to 200°F (93°C).
- Qualifies for USDA incidental food contact applications.
- HARD CAP-100™ can be applied by several methods. These include heated plural-spray, in line static mix spray, external static mix pour, or brushed.
- HARD CAP-100™ is available with an adhesion enhancing admixture for additional adhesion to inorganic surfaces such as glass, ferrous metals, concrete, etc. Contact a SPI technical service person for specifics.
- HARD CAP-100™ is also available with a microbial resistant additive to minimize mold/mildew growth.

RECOMMENDED USES

- A hard washable coating for floors, walls, ceilings, etc. in food and beverage processing facilities. (qualifies for USDA incidental food contact)
- For institutional applications such as clean rooms, hospitals, etc. where an easily cleanable seamless surface is required.
- Fountains, reflection pools and aquariums.

OTHER USES REQUIRING A CLEAR FINISH

- Stop erosion on concrete, brick or stone while retaining its natural look.
- Apply to metal or concrete structures such as bridges and towers, to facilitate visual inspection for structural integrity.
- Preserve archaeological artifacts.

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. @ 16 mils/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: 1200 approx. B: 600 approx.
Shelf Life Unopened Containers @ 60-90°F (15° - 32°C)	Six months

DRY PROPERTIES @ 55 mils (1.5mm)*

Tensile Strength ASTM D 638	1835 psi (12.7 mpa) Average
Elongation ASTM D 638	47% Average
Hardness (Shore A) ASTM D2240-81	(0s) 98
Hardness (Shore D) ASTM D2240-81	(0s) 55
Tear Resistance ASTM D 624	365 pli (63 KN/m) Average
Service Temperature	-30°F - +200°F -1°C - +93°C
Moisture Vapor Transmission ASTM E-96-80	0.018

**All dry 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. The samples for tests were sprayed with SPI-Gusmer 18/18 @ 1300 psi (9.0mpa) dynamic pressure. Primaries/Hose Heat 160°F (71°C) D-7 Gun w/#46 mixing chamber. Test results from Huntsman Corporation*

***Complete polymerization to achieve final strength can take up to several days or weeks, depending on a variety of conditions or product type.*

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

Tack Free	1 hour & 15± min.
Post Cure**	24 hours
Recoat	30 min. – 12 hours

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SPI Manufacturing/Distribution Locations: Lakewood, WA · Rowlett, TX · Anchorage, AK

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GENERAL APPLICATION INSTRUCTIONS

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

Consult technical service personnel for specific primer recommendations and substrate preparation procedures.

HARD CAP-100™ can be sprayed over a broad range of ambient temperatures. Contact technical service personnel for specific recommendations, pricing, and availability of spray and auxiliary equipment.

The polyol "B" component must be thoroughly power mixed each day, prior to use. Contact a SPI technician regarding proper mixing equipment.

It is recommended that HARD CAP-100™ be sprayed in multi-directional (north-south/east-west) passes to ensure uniform thickness.

If HARD CAP-100™ is to be brushed or troweled do not mix more than what can be used in 20 minutes.

RECOMMENDED EQUIPMENT AND SETTINGS

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 1500psi (10.4 mpa) dynamic pressure with heating capabilities to 175° F (79°C) will adequately spray HARD CAP-100™. These include Gusmer 20/35, Graco EXP2, HXP2, and HXP3. Gun models include a GX7-400 gun, GX8 or Graco MP Fusion gun.
- Pre-heater temperature should be at 160°F (71°C).
- Hose temperature should be at 160°F (71°C). A hose thermometer inserted under the insulation near the gun should read a minimum of 145°F (62°C).
- A SPI static mix adapter with airless tip is recommended to enhance physical properties.

MIXING AND THINNING

The polyol "B" component must be thoroughly power mixed each day, prior to use. Contact a SPI technician regarding proper mixing equipment.

Thinning is not required and may adversely affect product performance.

LIMITATIONS

- This product is for professional use only.
- Apply HARD CAP-100™ when surface and air temperatures are above 40°F (5°C) and rising, and 7°F (3°C) above dew point.
- Minimum material/container temperature for spray application is 70° (27 °C).
- Liquid temperature in drums during application 70° F (21 °C) – 100°F (38°C).

GENERAL SAFETY, TOXICITY & HEALTH DATA

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.

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

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



CLEAN UP: Use DPM, NMP, Polyclean.

CHEMTREC EMERGENCY NUMBER 1-800-424-9300

CONTAMINATION: Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected; carbon dioxide created pressure can develop. Do not attempt to use contaminated material.

EYE PROTECTION: Safety glasses, goggles, or a face shield are recommended.

SKIN PROTECTION: Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION: 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 in deciding if additional protective measures are necessary.

INGESTION: Do not take internally. It is believed 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 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.

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



SPI WEBSITE