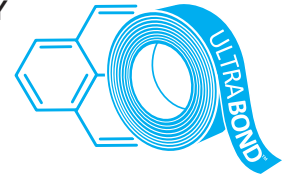




# HARD CAP™ 100 UB

CLEAR ALIPHATIC POLYUREA  
PRELIMINARY



## DESCRIPTION

**HARD CAP™ 100 UB spray-applied, plural component polyurea is an ideal choice when a durable high build coating for interior and exterior applications. HARD CAP™ 100 UB provides a flexible, resilient, tough, monolithic membrane with good water and chemical resistance.**

## FEATURES

- **HARD CAP™ 100 UB** is available with SPI's cutting-edge Ultra Bond™ technology. SPI's advanced Ultra Bond™ chemistry is coined "the duct tape molecule". Ultra Bond™ has the unique advantage of adhering to most properly prepared organic and inorganic (new and aged) surfaces without requiring a primer. Like duct tape, **HARD CAP™ 100 UB with Ultra Bond™** gains adhesion over time.
- 100% solid, no solvents, and zero VOCs.
- Extended tack time to allow deep surface penetration as well as a smooth, uniform finish.
- Compliant with FDA/USDA for incidental food contact. Contact SPI for more information.
- **HARD CAP™ 100 UB** can be applied by several methods. These include, heated plural-spray, in line static mix spray, or external static mix pour.
- **HARD CAP™ 100 UB** is available with an adhesion enhancing AE4 ad-mixture for additional adhesion to inorganic surfaces such as glass, ferrous metals, concrete, etc. Contact a SPI technical service person for specifics.
- **HARD CAP™ 100 UB** is also available with a microbial resistant additive to minimize mold/mildew growth.

## RECOMMENDED USES

- A hard washable coating for floors, walls, ceiling, etc. in food and beverage processing facilities.
- For institutional applications such as clean rooms, hospitals, etc. where an easily cleanable seamless surface is required.
- Fountains, reflection pools, and aquariums.
- Stop erosion on concrete, brick or stone.
- Apply to metal or concrete structures such as bridges and towers integrity.
- Preserve archaeological artifacts.

## TYPICAL PHYSICAL PROPERTIES

<b>Service Temperature</b>	-50°F - +200° (-45°C - +93°C)
<b>*Cured film properties sprayed with low pressure; unheated proportioner</b>	
<b>Tensile Strength ASTM D638</b>	± 1,016 psi (7 mpa)
<b>Elongation ASTM D638</b>	± 125%
<b>Hardness (Shore D) ASTM D2240-81</b>	48 ± 5

\*The samples for tests were sprayed with SPI LPG proportioner @ 250 psi with SPI LOCK N LOAD gun with 9" polyurea mixing element. Temperature of "A" and "B" components in Synergy Series container 90°F (32°C).

## CURING SCHEDULE

<b>Gel</b>	± 1 min. 30 sec.
<b>Tack Free</b>	± 35 min.
<b>Post Cure**</b>	48 hour
<b>Recoat</b>	30 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.

## WET PROPERTIES

<b>Solids by Volume</b>	100%
<b>Solids by Weight</b>	100%
<b>Volatile Organic Compounds</b>	0 lbs./gal. (0 g/l)
<b>Theoretical Coverage DFT</b>	100 sq. ft. @ 16 mils/gal
<b>Weight per gallon (approx.)</b>	8.8 lbs. (4.0 kg)
<b>Number of coats</b>	1 or more as needed
<b>Mix Ratio (by volume)</b>	1 "A" : 1 "B"
<b>Viscosity 77°F (25°C)</b>	A: 1000 ± 200 cPs B: 450 ± 50 cPs
<b>Shelf Life Unopened Containers at 60 - 90°F (15 - 32°C)</b>	6 Months
Minimum material/container temperature for application is 70°F (21°C).	

## COLORS

HARD CAP™ 100 UB is available in White, Black, Sand and Grey. Custom colors available upon request.

## PACKAGING

This product is sold in standard 110 gallon drum and 550 gallon tote sets. Available in 10 and 30 gallon container sizes. Contact SPI sales representative for further information. Non-standard containers may require a longer lead time.

## GENERAL APPLICATION INSTRUCTIONS

Apply HARD CAP™ 100 UB only to clean, dry, sound surfaces free of loose particles or other foreign matter. HARD CAP™ 100 UB can be sprayed over a broad range of ambient and substrate temperatures. It is recommended that HARD CAP™ 100 UB be sprayed in multi-directional (north/south-east-west) passes to ensure uniform thickness.

Contact SPI technical service personnel for specific surface preparation for your application.

### COMMON SUBSTRATES:

**STEEL:** 2-5 mil anchor profile is best for maximum adhesion and varies per application and conditions; adhere to proper SSPC standards.

**WOOD:** Clean, dry and sanded for a smooth (to remove burs, splinters, loose debris) surface in which to apply polyurea onto. (It is recommended to prime wood and other porous surfaces before application of heated, fast-set polyureas to reduce pin holing)

**CONCRETE:** Prepare concrete in accordance with SPI Concrete Prep Guide and SSPC/NACE Standards.

**PREVIOUSLY APPLIED COATINGS:** SPI recommends UB™ (ULTRA BOND™) products over existing coatings that are past the recoat window and/or application over other coatings. Contact SPI for additional information.

**NOTE:** It is recommended that existing surfaces be power washed with 2500–3500 psi water pressure to enhance adhesion of HARD CAP™ 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 there is oxidation on the surface of the existing substrate it must be removed prior to application of HARD CAP™ 100 UB. Removal of oxidation can be done via mechanical methods to insure the HARD CAP™ 100 UB has a sound substrate to adhere to. The use of SPI Prep Wipe™ solution will tack up the existing polyurea coating and help promote bonding of the HARD CAP™ 100 UB.

On all above listed substrates and others, please contact SPI Sales or Technical Support for more information specific to your application, including industry standards such as SSPC and NACE. Adhesion tests are always recommended prior to application.

## MIXING & THINNING

Thoroughly agitate the "B" components of this product prior to application. Use a SPI folding blade mixer, or equivalent equipment approved by SPI. Install mixer through the extra air specific 2" bung hole provided on all "B" drums. Care must be taken not to cross contaminate the individual components with the mixing equipment; for best mixing results, supply the SPI mixer with 25 cfm of air at 100 psi. Thinning is not required. Using any thinner may adversely affect product performance.

## PARAMETERS & LIMITATIONS

- HARD CAP™ 100 UB is for professional use only.
- HARD CAP™ 100 UB must be stored at temperatures between 60–90°F (15–32°C).
- Apply HARD CAP™ 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 containers during application of product should be 70°F (21°C) minimum, 85°F (29°C) optimum, and 100°F (38°C) maximum.
- Product and hose temperature during application should be 85°F (29°C).
- Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected. CO<sub>2</sub> 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.
- A primer may be required to seal porous surfaces.

**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 by the person applying polymers.

For latest technical data sheet revision visit our website at [www.specialty-products.com](http://www.specialty-products.com).

## PROCESSING EQUIPMENT

# LPG™ PROPORTIONER & LOCK N LOAD™ GUN

### Portable Polyurea Coating & Polyurethane Foam Proportioner

True Portability  
& Product Versatility

**Lightweight 76 lbs.**  
**(18" H x 18" W x 10" D)**

Low Pressure, Low Heat

**Uses 110 Volt**  
**Single Phase 15-AMP**  
**Standard Electric Wall Outlet Power**

Minimal Field Maintenance

### Simple to Operate

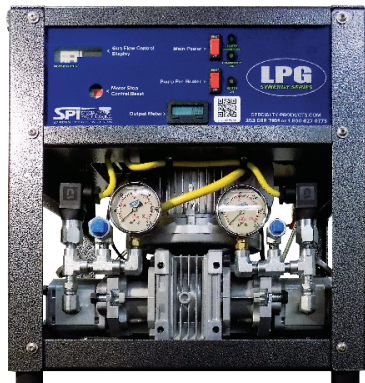
Minimize Investment,  
Maximize Profit!

### Low Market Entry Cost

Limited Warranty Available

### Training and 24/7 Technical Support

**CART OPTIONAL**



## LOCK N LOAD™ GUN

The **LOCK N LOAD™** Gun (with Modular On-Off, Pressure and Output Control) is available with the following quick change attachment:

### NUCLEATED SPRAY/POUR FOAM

Synergy Series Polyurethane Foam and Polyurea Elastomers

**Requires auxiliary air compressor**



## 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 INT'L 1-703-527-3887.**

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

**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 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. Ensure adequate ventilation. If the respirator is the sole means of protection, use a full-face supplied respirator. Use respirators and components tested and approved under appropriate government standards such as OSHA 29CFR 1910.134, NIOSH (US), or CEN (EU). 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.



SEAMLESS SOLUTIONS FOR OVER 40 YEARS



### WARRANTY & DISCLAIMER

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**Serving the Plural-Component Industry**

**Product & Equipment Technical Assistance**  
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SPI Website

### CONTACT US

2410 104<sup>th</sup> St. Ct. S. Suite D, Lakewood, WA 98499  
**SPECIALTY-PRODUCTS.COM**  
1 800 627 0773 FAX 253 588 7196  
info@specialty-products.com



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