

DESCRIPTION

ULTRA BOND™ HT is a high tensile, high elongation, high build, fast-set elastomer, specifically formulated to provide a tenacious bond to certain thermoset plastic surfaces. Unlike most spray-applied polyureas ULTRA BOND™ HT has the unique advantage of adhering to many polymeric substrates, both new and aged, typically without the use of primers or extensive surface preparation.

FEATURES

In house testing has shown excellent adhesion to certain clean dry surfaces including:

- Primers past the re-coat window
- Latex rubber
- Crumb rubber surfaces
- Melamine
- Firestone SBS roofing membrane
- Epoxy
- SBR rubber
- Aged polyurea
- Automotive finishes
- Roofing
- Glass
- Sarnafil vinyl roofing membrane
- Line-x bed liner.

Note: Polymer formulations vary. It is recommended that adhesion tests be performed before commencing any project using ULTRA BOND-HT™. For adhesion verification SPI encourages you to submit your (substrate) sample to SPI to be sprayed and tested.

RECOMMENDED USES

- Coating over organic primers that are past their re-coat window. These include SPI POLYPRIME™ 100 and EP™ 100.
- Repair of polyurea liners.
- For texturing aged polyurea.
- Top coat compatible existing membrane liners
- Re-coat urethane liners.
- Re-coat over other polymer based substrates used for flooring, wall covering, and infrastructure protection.

COLORS

ULTRA BOND™ HT is available in SPI standard colors (Sand, Medium Grey, and Black). Custom colors available upon request. Note: ULTRA BOND™ HT is an aromatic polyurea. Therefore, with all aromatics, color change and superficial oxidation will occur. 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.

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.

DRY PROPERTIES*

Tensile Strength ASTM D412	± 4,200 psi (29 mpa)
Elongation ASTM D412	± 380%
Hardness (Shore A) ASTM D2240	95 ± 5
Hardness (Shore D) ASTM D2240-81	50 ± 5
100% Modulus ASTM D412	1500 psi (10 mpa) ± 5%
300% Modulus ASTM D412	3000 psi (21 mpa) ± 5%
Tear Resistance ASTM D624	500 PLI (88 KN/M) ± 50
Service Temperature	-50° - +200°F (-45° - +93°C)

*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.

CURING SCHEDULE

Gel	± 8 sec
Tack Free	± 12 sec
Post Cure**	24 hours
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 (17.3 mpa). Primaries/Hose Heat 170°F (77°C), MP Fusion gun with 29/29 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)	8.8 lbs. (4.0 kg)
Number of coats	1 - 2
Mix Ratio	1 "A" : 1 "B"
Viscosity @77°F (25°C)	A: 370 ± 50 cps B: 45w0 ± 50 cps
Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)	Six Months

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

MIXING & 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. Using any thinner may adversely affect product performance.

GENERAL APPLICATION INSTRUCTIONS

It is recommended that oxidized surfaces be power washed with 2500—3500 psi water pressure to achieve maximum adhesion of ULTRA BOND™ HT. 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.

Apply ULTRA BOND™ HT only to clean, dry, sound surfaces free of loose particles or other foreign matter. A primer may be required depending on type and/or condition of the substrate.

ULTRA BOND™ HT can be sprayed over a broad range of ambient and substrate temperatures.

Contact technical service personnel for specific recommendations and pricing. As well as the availability of spray and auxiliary equipment..

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

Follow the instructions attached to "A" and "B" containers.

RECOMMENDED EQUIPMENT SETTINGS

- Standard 1:1 ratio, heated, plural-component equipment developing a minimum of 2000 psi (10.4 mpa) dynamic pressure with heating capabilities to 175°F (79°C) will adequately spray ULTRA BOND™ HT.. These include Graco 20/35, 20/35 Pro, H-3500, HV-20/35, Reactor E-XP1, E-XP2, H-XP2, H-XP3, PMC GH-25, GH-40, PHX-25, and PHX-40. Gun models include Fusion MP, Gap Pro, GX7-DI, and GX-8 Pro.
- 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) (20.8mpa), utilizing an impingement mix gun such as MP Fusion or GX7-DI.

LIMITATIONS

- This product is for professional use only.
- This product must be stored at temperatures between 60° to 90°F (15° to 32°C).
- Minimum material/container temperature for spray application is 70°F (21°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.
- Liquid temperature in drums during application 70° - 100°F (21° - 38°C).
- Apply ULTRA BOND™ HT. 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 components exposed to undried air will result in reduced physical properties of the cured coating.

Note: The material supplied is 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.

CONTAMINATION: 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.

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

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