

## 5500 HH Poly♦Urea

**Description:** High Solids Aliphatic Roll-Down Coating Specifically Formulated For High Humidity Conditions

5500 HH is an 88% solids, two component, Aliphatic MDI and multifunctional blend formulated in Polyurea/Aspartic as a slow system for warm, humid conditions. High Humidity will shorten the set time of many aliphatic aspartic products. The 5500 HH is formulated to work with the high heat and humidity to allow for more working time while still providing the excellent results as found in the 5500 product systems.

The polymer structure is very clear and may be pigmented, is non-yellowing, very tough, excellent color retention, good chemical resistance with excellent adhesive properties. 5500 HH is a reactive two component system highly resistant to staining and marking.

The 5500 systems are "roll-down" Polyurea/Aspartic products that are a clear finish coat with good elongation and flexibility. The 5500 systems do not become brittle as other aspartic products and are completely Aliphatic or UV resistant with excellent color stability. The 5500 aliphatic products systems conforms to the requirements of the USDA for incidental food contact and are formulated to be non-color changing, abrasive resistant, non-brittle, flexible, quick set with impact resistance.

### Unique Characteristics:

5500 HH is a unique Aliphatic Polyurea/Aspartic that has extended working time allowing for easier applications in areas where the faster version would not be appropriate or would set too quickly.

### Advantages

- HH FOR HIGH HUMIDITY – MORE WORK TIME
- ALIPHATIC POLYUREA/ASPARTIC DOES NOT CHALK OR YELLOW
- CURES TO A VERY CLEAR FINISH
- HIGH STAIN RESISTANCE TO MOST TIRES
- EXCELLENT UV RESISTANCE
- SETS QUICKLY
- GOOD WORKING TIME
- CHEMICAL RESISTANT
- EXCELLENT ABRASIVE RESISTANCE
- HIGHLY ADHESIVE
- WATERPROOFING ELASTOMERIC SYSTEMS
- GOOD ELONGATION
- QUICK "TURN-AROUND" FLOOR APPLICATIONS
- COLOR CHIP FLOORS & COLOR QUARTZ FLOORS

### USES

- DECORATIVE FLOOR FINISHES
- INDUSTRIAL FLOOR COATING
- KITCHEN FLOOR SEALING & FINISHING
- WATER FEATURE APPLICATIONS
- CLEAR TOP COAT FOR COLOR CHIPS & COLORED QUARTZ
- SLABS, STAIRS & PEDESTRIAN WALKWAYS
- DECKS, WOOD STRUCTURES, INDUSTRIAL WALL & FLOOR APPLICATIONS, EXTERIOR APPLICATIONS



5500 HH applied over art in warm humid areas

**General Physical Characteristics**

Solids	88%
Shelf Life	1 year
Potlife @ 70F	>25 minutes
Hardness ASTM D2240,	Shore A 85 & 50D
Mix Ratio	1:1
Tack Free ASTM D2471	1.5-2 hrs.
Tensile ASTM D412	>4000 psi
Tear Strength D470	850lbs./in.
Abrasion (CS17) ASTMD4060-90	4.0mg/1000/500 cycles
Gel Time (surface applied)	>30 min @ 75°F
Permeability ASTM E96(WVT)	0.053grms/hr/sqft
Elongation ASTM D124	120%
Processing Temperature	70°F
Viscosity@ 25°C cps,	450+/-50
UV Resistance	High
Compressive Strength; 8 hrs. –	7300 psi, 24 hrs. – 11,200 psi,
7 day –	14,100 to 19,000 psi

**Chemical Resistance 5500 Systems**

Chemical	24 hrs.	7 days
10% Acetic Acid	+	- yellowing
100% Ethanol 200 proof	+	+
50% Sulfuric Acid	+	+
38% Hydrochloric Acid	+	+
10% NaCl	+	+
28% Ammonia	+	+
85% Lactic Acid	+	- down gloss
5% to 10% Clorox Bleach	+	+
Citrus Cleaning Solvent	+	- slight blisters
Skydrol PE-5	+	+
Power Steering Fluid	+	+
Transmission Fluid Dextron	+	+
Motor Oil	+	+
Brake Fluid	+	- slight blisters
Unleaded Gasoline	+	+
Mek	-	-
Xylene	-	-
Tap Water	+	+
Coffee	+	+
Cola	+	+
Grape Juice	+	+
Ketchup	+	+
Mustard	-	- transient
yellowing		

+ Positive results, - Negative results

**Preparation:**

Concrete must have a minimum 28 day cure prior to application. Remove any curing agent, form release materials, oils, wax, moisture or any material that may affect bonding. Clean and wash to remove contaminants and maintain pH 8.0-11.0. \*\*Provide rough profile minimum 2 mils. Review ASTM D4259

“Abrading Concrete” and ASTM F1869 Measuring Moisture Vapor Emission. Note: High Tensile, see 5500 EX data sheet.

**Priming:**

5500 is self-priming.



**Moisture Vapor Reduction:**

Use ASTC’s CMW to reduce moisture vapor drive. Efflorescence or white powder-like material visible on the concrete slab indicates moisture vapor drive. See CMW data for efflorescence treatment.

**Mixing:**

Use a jiffy mixer and 650 rpm drill motor to mix product. Mix at slow speed adding part B into part A \*while mixing. Do not change the proportions. Mix completely for approximately one to two minutes. Avoid mixing air into the blend. Mix at 1:1 ratio in a separate clean pail, pour out on surface, squeegee and back- roll.

**Adding Pigment:**

Use 12 to 14 ounces for the pigment provided by ASTC. Do not use other pigments as they are not formulated with the proper base materials that are compatible with the 5500 products. Do not overload the 5500 with pigment, use the minimum amount of pigment for the desired effect. Important: When adding pigment to the mix of 5500 as a base coat is it helpful to add about 3-4 ounces of Xylene per mixed gallon of product and pigment mix. The addition of the solvent helps with dispersion of the pigment and with penetration into the substrate.

**Colors:**

Tan, Wheat/Straw, Pearl Gray, Mist Gray, Medium Gray, and Black. White is also available for adding to the above colors as desired.

**Application:**

Application range; 45°F to 90°F. Apply the product using a notched squeegee or similar squeegee to move the product over the application area. \*Hot surfaces may accelerate gel time of the product. \*High Humidity will accelerate the gel time of the 5500 product systems. Product should be back-rolled using a short nap roller, about ¼" to 3/8". \*\*Apply in thin films from 5,8 or 10 mils per coat. Do not apply thicker than 10-12 mils at one time. Recoat Time; apply a second coat as soon as the first coat can be walked on, 1 to 2 hours. If recoat window is exceeded, sand lightly to produce a profile, wipe with acetone and re-coat.

**Curing Time:**

Approximately 1.5 to four hours for low foot traffic volume. Cure 5 to 8 hours for heavier foot traffic. Test surface cure to be sure surface is ready for vehicles before allowing access. *Cure is affected by environmental conditions & high humidity. Do not use 5500 HH in environments that are cool with low humidity, long extended cure times will result.*

**Cold Temperatures:**

When environmental conditions are cool or cold and the ambient temperature is about 50 degrees F, use the faster 5500 systems.

**Limitations:**

**Note:** The product is resistant to most tires, however, there are some tires that may stain the coating. Not all tires and their characteristics can be tested for staining. If moisture vapor drive is evident or efflorescence is visible use a vapor barrier CMW. Use compatible surface repair products with 5500. Pot life is effected by environmental temperatures and humidity. Do not use on wet surfaces or expose part A to moisture. Keep out of direct sunlight and store the product kits on wood pallets at room temperature. Use a Nitrogen blanket over unused product for proper storage and protection from humidity.

This product is for use by professional applicators only. Wear Protective Clothing and gloves as the product bonds very well to fabrics. Read MSDS before using this product. DOT/Flash Point – Non-flammable Liquid Classification, not regulated. Warranty: See ASTC Polymers, Inc. Warranty data sheet. (2-13) Product data sheets subject to change without notice. © 2013 ASTC Polymers, Inc.