

5500 EX Polyurea

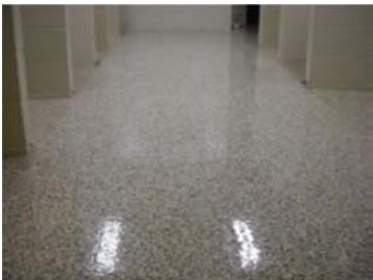
Description: High Solids Aliphatic Roll-Down Coating

5500 EX is a 87% solids, two component, Aliphatic MDI and multifunctional polyurea aspartic amine blend specifically designed as a pure polyurea slow system roll-down. The EX is the designation for the 5500 Extended Cure providing additional working time compared to the 5500 Fast Set product. 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 EX is a reactive two component system highly resistant to staining and marking.

The 5500 EX "roll-down" polyurea is used as a clear finish coat with good elongation and flexibility. The 5500 EX aliphatic product conforms to the requirements of the USDA for incidental food contact and is formulated to be non-color changing, abrasive resistant, non-brittle, flexible, quick set with impact resistance.

Unique Characteristics:

5500 EX 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 to quickly. This product can be supplied with a non-skid additive that is incorporated into the product while the product is in the liquid state. The aggregate is a special plastic aggregate from ASTC, "SSR" aggregate.



Advantages

- A POLYUREA/ASPARTIC
- CURES TO A VERY CLEAR FINISH
- HIGH RESISTANCE TO MOST TIRE & STAINING
- EXCELLENT UV RESISTANCE
- SETS QUICKLY
- GOOD WORKING TIME
- CHEMICAL RESISTANT
- EXCELLENT ABRASIVE RESISTANCE
- HIGHLY ADHESIVE
- BEAUTIFUL CLEAR APPEARANCE
- WATERPROOFING ELASTOMERIC SYSTEMS
- GOOD ELONGATION
- FAST "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

General Physical Characteristics

Solids	100%
Shelf Life	1 year
Potlife @ 70F	>25 minutes
*Note: The above is provided as a range of set times and is approximate only. (Test before using in your area – environmental conditions produce different affects.)	
Hardness ASTM D2240,	Shore A 85 & 50D
Mix Ratio	1:1
Tack Free ASTM D2471	1-1.5 hrs.
Tensile ASTM D412	>4000 psi
Tear Strength D470	850lbs./in.
Abrasion (CS17) ASTMD4060-90	4.0mg/1000/500 cycles
Gel Time (surface applied)	20 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

**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. Seal/repair all bug-holes, cracks and spalls, see ASTC data sheets on 830, 4034.

Note: High Tensile, very hard concrete with small aggregate is difficult to grind. It is important to observe the result (appearance) of grinding this type of concrete. It may be necessary to grind this type of concrete with a rougher dry diamond blade(s) to assure a good profile.

When coating this type of concrete with the 5500 and added pigment, add additional Xylene to the mixed 5500/pigment. It is suggested that about 12-14 ounces of Xylene be added to the mix for a gallon (only for high tensile concrete). Check the penetration of the 5500/pigment to assure that the product is getting a "bite" to the hardened or high tensile type of concrete.

Test The Hardness Of Concrete: The following hardness tester is available at a reasonable cost; HT 225A Concrete Compression Test Hammer/Concrete Hardness Tester (Schmidt equivalent) The low cost HT225A Concrete Compression Test Hammer/Concrete Hardness Tester (Schmidt equivalent) is designed specifically for the non-destructive testing of concrete structures. Conforms to ISO, ASTM, BS, EN, DIN, NFP, UNI

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. Fast set product:

Do not let the mixed product remain in the mixing container. Stick/hand mixing not recommended.

Adding Pigment:

Use 10 to 12 ounces for the pigment provided by ASTC. Example; ½ gallon A and ½ gallon B = one mixed gallon – add 10-12 ounces per mixed gallon of product. If using white add 12 to 14 ounces. Do not use other pigments as they are not formulated with the proper base materials that are compatible with the 5500.

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 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:

Leather Tan, Special Taupe, Pearl Gray, Medium Gray. 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 product. 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 high humidity.* EX Set 5500 version may take a little longer to set in very dry or low humidity conditions and may require one or two days before vehicle traffic may have access to the coated area.



Cold Temperatures:

When environmental conditions are cool or cold and the ambient temperature is about 50 degrees F, the 5500 EX cure will slow down. Although the polyurea product does slow, it will continue to cure but will take longer to develop its hardness. For applications in reduced temperatures starting at around 50F use the 5500 Fast Set. The 5500 Fast Set cure will not slow down as much as the 5500 EX product and the Fast Set will develop physical properties, hardness, etc. sooner than the EX will in cold conditions.

Limitations: 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.

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.

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. © 2010 ASTC Polymers, Inc .