

**HYPERTHANE** 500HDC Acrylic Urethane  
HYPERFORMANCE URETHANE

**PRODUCT CODES:** IG92-20751 – Ultra Jet Black

**DESCRIPTION:** The Hyperthane 500 HDC Acrylic Urethane is a premium, high crosslinking urethane with extremely good long term gloss and color retention along with excellent film hardness and resistance properties. Hyperthane 500 HDC Acrylic Urethane can be applied with conventional, airless, electrostatic, and plural component equipment.

**PHYSICAL PROPERTIES:**

Weight Solids: 55%  
Volume Solids: 48%  
Resin Type: Acrylic Urethane  
Gloss: 90+ at 60°  
Theoretical Coverage: 773 square feet at 1.0 mil  
Weight per Gallon: 8.6 pounds  
Blended Viscosity: #2 Zahn – 28 to 30 seconds at 77°F  
EPA VOC: 3.4 pounds per gallon

**SURFACE PREPARATION:** The service expectancy of a coating is primarily dependent upon good surface preparation. The surface to be coated should be free of mill scale, rust, oil, and other contaminants, including salt deposits. Hyperthane 500 HDC Acrylic Urethane may be applied over steel, aluminum, fiberglass, or galvanized steel. Due to inconsistencies in galvanizing, please check with your local Vogel Industrial representative for recommendations and substrate testing. The recommended primer to use with Hyperthane 500 HDC Acrylic Urethane is the Stratum two component urethane primer system or HPFE Epoxy Primer System. For optimum adhesion, hot rolled steel should have the mill scale removed by an abrasive blast to SSPC-SP-6 to an average profile of 1.5 mils and then coated before flash rusting occurs.

Steel: Bare steel areas should be treated with an iron phosphate conversion coatings and adequate rinsing.  
Aluminum/Galvanized: Aluminum and galvanizing should be treated with appropriate metal cleaners and conditioners.

**ACTIVATION:**

Mixing Ratio: Hyperthane 500 HDC Acrylic Urethane should be mixed **3 parts A to 1 part B IG-0272** by volume. Part fill level in gallon cans will be 3/4 gallon. This is mixed with a quart of the Part B.  
A  
Sweat-In Time: None  
Pot Life: 5 hours at 77°F  
Viscosity will double in 6 hours. Gel time is approximately 8 hours. As temperatures increase, the pot life will decrease.

**APPLICATION:**

Airless: This urethane can be sprayed with all types of application equipment. For airless application no reduction is necessary. Airless tip sizes should be in the .011 to .015 range. Adjust pressures accordingly for best atomization and transfer efficiencies. Air-assist airless pressures will be in the 800 to 1000 pound range for fluid and 30 to 50 pound range for atomizing air.  
Conventional Air: For conventional air and electrostatic spray some reduction may be necessary. Use Butyl Acetate or MAK for reducing purposes. Pressures are dependent upon the type of gun and fluid nozzle, but typically will be in the 45 to 60 pound range for proper atomization.

- In-Line Heat:** In-line heat may be utilized up to 100°F to improve application. Caution must be exercised to turn heat down during breaks and shut downs to avoid locking up the paint lines due to decrease in pot life.
- Dry Film Thickness:** For best results, dry film thicknesses should be 1.0 to 2.0 mils above surface profile. This will require wet film thicknesses of about 3.0 to 4.0 mils. Apply in two medium build coats.
- DRY TIMES:** Hyperthane 500 HDC Acrylic Urethane will typically dry to tack free in 1.5 to 2.0 hours. Dry hard times will be 24 hours. Hyperthane 500 HDC Acrylic Urethane can be recoated at tack free and up to 24 hours. After 24 hours Hyperthane 500 HDC Acrylic Urethane will need to be scuff sanded to ensure inter-coat adhesion. Force drying: 20 to 30 minutes at 180° to 200°F depending on metal thickness and mass. When recoating after force drying, scuff sanding will be required to ensure inter-coat adhesion
- CLEAN UP:** Use ketones to flush application lines and equipment.
- PERFORMANCE:** Typical, tested on B-1000 panels.
- Salt Spray:** ASTM B-117 – 1,000 hours
- Chemical Resistance:** ASTM D1308 – 30 minute spot  
Diesel – Pass, no visible change  
Ammonia – Pass  
Hydraulic Fluid – Pass  
30 Weight Oil – Pass
- Florida Exposure:** 2 – year results  
Less than 10% loss of gloss on average
- Pencil Hardness:** 2H – 4H DTM
- Direct and Indirect Impact:** 160 inch pounds
- SAFETY PRECAUTIONS:** Contains aliphatic polymeric isocyanate and butyl acetate when blended. Avoid contact with skin. Vapor and spray mist harmful. Use proper respiratory protection, including positive air supplied respirators. Refer to SDS for specific information. All information subject to change without notice.