



# PRODUCT DATA

## URETHABOND 313

Coatings For Industry, Inc. • 319 Township Line Road, Souderton, PA 18964 / 215-723-0919

### Description

Two package aliphatic urethane, flexible polyester type, finish coating for exterior applications.

### Colors

Available in standard full gloss colors and clear. Special colors and gloss can be matched upon request.

### Packaging

One and five gallon containers of Part A and Part B.

### Uses

Urethabond 313 is a highly flexible coating having non-yellowing and non-chalking

properties along with excellent abrasion, chemical, solvent, and good heat resistance properties. It provides excellent gloss retention and will continue to retain a high gloss through many years of service. It is suggested, therefore, as a finish coat on plastics or flexible metal substrates.

Urethabond 313 can be applied over a wide variety of properly prepared and primed substrates including structural steel, cold rolled steel, aluminum, concrete, plastics and galvanized steel. In some cases it is self priming, but it is generally used as a topcoat over Urethabond 104, Urethabond 109.

### Technical Data

Volume Solids:	Colors 64%(volume solids can vary with color)
Weight Solids:	Colors 77%(varies slightly with color)
Dry film thickness, minimum:	2.0 mils per coat
Theoretical coverage @ 2 mils dft:	Approximately 512 sq.ft./gallon (may vary slightly with color)
Dry time @ 70°F., 50% R.H.:	To touch - 4 to 8 hours Full cure - 3-5 days Max. hardness - 7 days
Pot life @ 70°F., 50% R.H.:	6 hours
Primer:	Urethabond 104, Urethabond 109,
Minimum application temperature:	25°F. or within 10° of dew point
Service Temperature Range:	-40°F. to +250°F
Fire Resistance of Dry Film*:	Self extinguishing
Method of Application:	Brush, roll or spray
Thinner:	CFI 711 or 735 Thinner
Cleanup Solvent:	CFI 704 or 711
Shelf Life:	
Part A (polyol)	2 years, if unopened
Part B (hardner)	1 year, if unopened
Mix Ratio:	3 Part A to 1 Part B by volume
Induction Time:	None required
V.O.C.:	2.68 lbs./gal. (321 gms./liter)

*\*NOTE: ALTHOUGH THIS COATING COMPOSITION IS NOT A FIRE-RETARDANT PRODUCT, IT WILL NOT SUPPORT COMBUSTION AND WILL SELF EXTINGUISH WHEN THE SOURCE OF FIRE IS REMOVED.*

## Surface Preparation

New metal surfaces should be cleaned of oil, grease and dirt. To obtain optimum results, the metal should be sandblasted and Urethabond 104 or Urethabond 109 primer applied then topcoated with Urethabond 313. If metal surface is rusted and sand-blasting is not practical from an application or cost standpoint, Urethabond 104 can be applied directly over rust which is tightly adherent. Although this situation is not as ideal as sandblasting, excellent results have been obtained (see CFI Bulletin 104.1). When painting over previously painted surfaces a spot test should be made to check for lifting, or incompatibility with the old coating. Dirt and loose paint should be removed by suitable method and spot primed before application of finish coat. It is extremely important that this surface is free of all moisture prior to coating application or blistering of paint film may occur. See also the product information bulletins on the above primers. Urethabond 109 is a zinc pigmented primer.

Plastics must be free of mold release compounds, oils and other surface

contaminates. Test plastic substrates to be sure solvents contained in Urethabond 313 will not attack the substrate, especially after post-forming operations.

## Application

Urethabond 313 can be applied immediately after mixing two components. However, thorough mixing of the two components is important. Mechanical mixing is preferred at slow speed to avoid air entrapment. This coating may be applied by spray (air or airless), brush or roller (close nap) as outlined in CFI Bulletin G-2. If application is by spray method suitable protective vapor/particulate respirators should be worn by all personnel in the area. In poorly ventilated enclosed areas or when airborne concentrations exceed TLV (ceiling) for HDI, a fresh air supplied mask should be worn. In all cases, observe OSHA regulations for respirator use (29CFR1910.134) whenever a respirator is used. See also product material safety data sheets. Spray equipment must be equipped with properly working vapor traps and air supply must be dry.

## SUGGESTED SPRAY EQUIPMENT SETTINGS

Equipment	Gun	Fluid Tip or Nozzle	Gun Pressure	Fluid Needle or Temp.	Air Cap or Pattern
<b>Normal Spray</b>					
De Vilbiss	MBC 510/ JGA 502	E or FF		E or FF	765
Binks	18	66 or 63C		65 or 63A	63PB
<b>Airless</b>					
De Vilbiss 47711	JGA-5026	JAC-31	2000-2200 PSI	AMBIENT	12-14"
Binks 99 Series	39/43	9-1860	2000-2200 PSI	AMBIENT	12-14"
Grayco Hydra-Spray	Std.	163-617	2000-2200 PSI	AMBIENT	12-14"
Nordson	Std.	20C09	2000-2200 PSI	AMBIENT	16-18"
Spraying Systems Gunjet	25A	650050TC	2000-2200 PSI	AMBIENT	12-14"

Use DRY air source and properly maintained moisture traps on all equipment. clean equipment IMMEDIATELY after use with CFI 704 or 711 clean up solvents.

## Precautions

WARNING: Flammable

Contains Aliphatic Polyisocyanate  
Prepolymer Hexamethylene Diisocyanate.  
Use only with adequate ventilation.

Good industrial hygiene practice dictates that when isocyanate based coatings are spray applied, some form of respiratory protection should be worn. During the spray application of organic solvent containing coating systems, the use of a supplied-air (either positive pressure or continuous flow type) respirator is mandatory when one or more of the following conditions exist:

- The airborne isocyanate concentrations are not known; or
- The airborne isocyanate monomer concentrations exceed 0.05 ppm (10 times the TLV); or
- The airborne polyisocyanate (polymeric, oligomeric) concentrations exceed 5 mg/m<sup>3</sup> averaged over 8 hours or 10 mg/m<sup>3</sup> averaged over 15 minutes (10 times the MGL); or
- No airborne solvent concentration exceeds its odor threshold; or

- Spraying is performed in a confined space (see OSHA confined space standard 29 CFR 1910.146).

Individuals with chronic respiratory problems or prior respiratory reactions to isocyanates must not be exposed to vapors or spray mist containing isocyanates. If affected by inhalation, vapor or spray mist, remove to fresh air. If breathing difficulty persists or occurs later, consult a physician and have label information available. (Read MSDS prior to product use).

**HARMFUL OR FATAL IF SWALLOWED.** If swallowed do not induce vomiting. Call physician immediately. **Eye Irritant.** Wear eye protection. In case of contact with eyes, flush repeatedly with water and contact a physician.

**Difficult to Remove From Skin.** Wear gloves and protective clothing. Do not attempt to remove cured coating on skin with solvent; soak in warm, soapy water. Barrier creams are not recommended where possible to cover with protective clothing.

**COMBUSTIBLE.** Keep away from heat, sparks and open flame. Refer also to Material Safety Data Sheet.

**LIMITED WARRANTY:** All statements, technical information and recommendations contained herein are based on tests the manufacturer believes to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, express or implied:

Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective at the time the sealed container is first opened, and in no event beyond the shelf life date printed on the label. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith.

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