



Versatile Polyurea Coatings from PPG

DURABULL® extreme-duty protective coatings are engineered to protect commercial trucks and industrial equipment. Made from specially designed aliphatic polyurea technology, these two-component, zero-VOC coatings blend superior* UV durability with extreme physical protection.

Advantages

- Aliphatic polyurea
- Zero VOCs (Volatile Organic Compounds)
- HAPs-free (Hazardous Air Pollutants)
- Highly durable
- Variable texturing for the right look and feel
- Tough and flexible over wide temperature range
- Air dry – no ovens required
- Tack-free in under a minute
- Outstanding corrosion protection
- Maintains original gloss and color in UV, Xenon WEATHER-OMETER® (WOM) and Florida exposure testing (FL) without chalking or fading
- Excellent chip, abrasion, impact, gouging, tearing and chemical resistance
- Capable of reducing noise

Application

Mix Ratio by Volume Resin : Cross-Linker (1:1)

Recommended Dry Film Thickness

The number of coats depends on the application. 2-3 coats will produce 40-60 mils. Additional coats may be applied for improved protection.
Minimum recommended film build: 40 mils
Film build of 80 – 100 mils is recommended for substrates that may see very severe conditions and/or require maximum protection.

Drying Times @ 70° F (21° C)

Tack-free: Under a minute
Dry to touch: 2 minutes

Spray Booth

Temperature: 70° – 90° F (21° – 32° C)
Humidity: 35 – 80% Dry surface is required (no condensation)

Spray Temperature of Material

135° – 155° F (57° – 68° C)

Equipment Set-Up

Spray gun type: Direct impingement
Spray gun pressure: 2,000 – 2,500 psi
Please contact your PPG representative for additional equipment details.

* Compared to aromatic polyurea coatings



Specification Testing All testing conducted 72 hours after *DuraBull* coatings application unless otherwise stated.

Adhesion	Acceptable adhesion (>16 lb/li peel strength or 500 psi ELCOMETER [®] units) obtained on many clean, dry, coated substrates with no scuffing required. Tenacious adhesion (>30 lb/li or 1,000 psi <i>Elcometer</i> units) to most electrocoat and primer coatings tested and very good adhesion (>20 lb/li or 750 psi <i>Elcometer</i> units) to many topcoat systems. NOTE: Adhesion should always be confirmed with samples of coated substrates.
Weathering	Minimal gloss loss with no chalking or fading at 1 and 2 years FL; 5,000+ kJ Xenon WOM
Environmental Cycle	No appearance or performance change after three cycles of: 16 hours at 100° F (38° C) / 95% RH (relative humidity); 4 hours at -40° F (-40° C); 4 hours at 194° F (90° C)
Immediate Environmental Exposure	No appearance or performance change when, 15 minutes after application, panels coated with <i>DuraBull</i> coating are exposed to 240 hours water soak at 73° F or 104° F (23° C or 40° C).
Heat Distortion Resistance	Minimal damage after 8 hours at 185° F (85° C) with 12 psi force applied.
Heat Resistance	No appearance or performance change after 500 hours at 194° F (90° C).
Cold Resistance	No appearance or performance change after 3 hours at -40° F (-40° C).
Freezer Cycle	No adhesion loss after 10 cycles from -22° F to 73° F (-30° C to 23° C) on panels tested 15 minutes after application.
Water Soak Resistance	No appearance or performance change after 240 hours at 104° F (40° C).
Humidity Resistance	No appearance or performance change after 240 hours at 95% RH (relative humidity) and 122° F (50° C).
Water Vapor Permeance	0.43 perms per ASTM D1653.
Salt Spray Resistance	No appearance or performance change after 1,000 hours ASTM B117.
Salt Water Resistance	No appearance or performance change after 120 hours at 104° F (40° C).
Corrosion Resistance	No appearance or performance change after 100 cycles of compound corrosion test.
Magnesium Chloride Resistance	No appearance or performance change after exposure to 80 cycles of cyclic corrosion test, SAE-J2334, using a 3% aqueous solution of magnesium chloride as the electrolyte.

Specification Testing (Continued)

Adhesive Resistance	No trace of gauze after 1 hour at 194° F (90° C).
Chemical Resistance	No appearance or performance change after: <ul style="list-style-type: none">• 24 hours spot testing with sulfuric acid• 4 hours spot testing with 5% caustic soda• 24 hours after 1 hour spot testing with cedar oil (Class 1 Reagent) and albumin• 24 hours immersion testing with Class 3 anti-freeze and SJ 5W-30 engine oil• 24 hours spot testing with brake fluid• 24 hours of 45° angle drip testing with leaded and lead-free gasoline or soak testing with lead-free and E85 gasoline• 24 hours spot testing of windshield washer fluid
Solvent Resistance	No appearance or performance change after 24 hours of 45° angle drip testing with ethanol, methyl ethyl ketone (MEK), isopropyl alcohol and naphtha.
Scratch Resistance	Minimal change after 10 and 30 cycles on crockmeter.
Abrasion Resistance	Minor gloss loss and no film loss observed after: <ul style="list-style-type: none">• 100 cycles in TABER® test with CST10 wheel at 500g load• 400 cycles in "A" nail test with 907g load• 10 and 30 strokes in crockmeter test with 800 grit paper
Impact Resistance	No damage observed when 500g weighted steel ball is dropped from a height of 100 cm onto <i>DuraBull</i> -coated panels at room temperature and at -40° F (-40° C).
Chip Resistance	No damage observed in SAEJ400 gravelometer testing using No. 6 and 7 crushed stone, 5 cups of No. 8 road gravel and hexagon nuts at 77° F and -4° F (25° C and -20° C).
Re-Coatability	Excellent adhesion when fresh coats of <i>DuraBull</i> coating are applied to panels of polyurea coating sprayed 1 hour, 1 day and 1 month previously.
Tear Resistance	Tear strength is 350 lb/li in ASTM D624 Die C.
Flammability	Cured material is self-extinguishing on horizontal panel.
Hardness	Shore A: 95+, Shore D: 56 – 65.
Tensile Strength	2,200 – 2,900 psi when measured with ASTM D412.
Elongation	130 – 200% when measured with ASTM D412.

Technical Properties

	Resin	Cross-Linker
Weight Solids (%)	100%	100%
BROOKFIELD® Viscosity @ 73° F (23° C)	800 – 1,600 cP	1,800 – 2,900 cP
Shelf Life (Unopened)	12 months	12 months
Storage Temperature	50-100° F (10-38° C)	50-100° F (10-38° C)
Pumping Temperature	50-100° F (10-38° C)	50-100° F (10-38° C)

The technical data presented in this document is based upon information currently believed to be accurate. However, no guarantees of accuracy, comprehensiveness, or performance are given or implied. Continuous improvements in coatings technology may cause future technical data to vary from what is in the bulletin. Contact your PPG representative for the most up-to-date information.

Consult individual Material Safety Data Sheets and Environmental Data Sheets for critical safety and environmental information.



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