

# DGR-8000 SERIES URETHANE

Dura-Gard Resins LLC  
 1329 Harrison Ave SW Canton, OH 44706  
 330-455-5125 www.dura-gard.com

**PRODUCT DESCRIPTION:**

Dura-Gard Resins 8000 Series High Wear Urethane is a high-solids, moisture-cured urethane coating designed for demanding environments requiring superior abrasion resistance and durability. It may be applied clear or pigmented without filler to produce a smooth, high-gloss finish.

Glass beads may be incorporated to enhance slip resistance and abrasion performance while maintaining a high-gloss appearance. Aluminum oxide can be added to achieve the highest level of abrasion resistance. Increased aluminum oxide loading produces a satin finish, while lower loading results in a glossier appearance.

Product Number: 194-R0-100 (Part A) | 194-R0-101 (Part B) | 194-1-AO (Part C)

**BENEFITS:**

- Excellent adhesion to properly prepared substrates
- Outstanding abrasion, stain, and chemical resistance
- Ideal for high-performance urethane topcoat applications
- Extremely low VOC — 50-state compliant
- Minimal to no odor during application
- User-friendly application characteristics
- Non-yellowing, UV-stable, 100% aliphatic urethane

**APPLICATIONS:**

where long-term wear resistance, chemical resistance, and UV stability are required.

**TYPICAL PROPERTIES\*:**

Property	Results	Test Method
Percent Solids by wt. (by vol.) — Part A	100 / 100	ASTM D2369
Percent Solids by wt. (by vol.) — Part B	50.1 / 51.6	ASTM D2369
VOC (A+B)	7.3 g/L (0.061 lb/gal)	ASTM D3620
VOC (A+B+C)	6.7 g/L (0.056 lb/gal)	ASTM D3620

\*Values represent typical laboratory results at 77°F (25°C). Variations may occur under field conditions.

**CURED COATING PROPERTIES\*:**

Property	Results	Test Method
Abrasion Resistance (Taber CS-17, 1,000g, 1,000 rev)	12 mg loss	ASTM D4060
Coefficient of Friction (James Tester)	0.63 (Exceeds OSHA)	ASTM D2047
Wet Static COF (BOT 3000)	0.94	ANSI/NFSI B101.1
Flammability	182 mm/min	ASTM D635

Resistance to Yellowing (1,000 hrs QUV)	<10 Δb if pigmented	ASTM G154
Dry Film Thickness (1 coat)	3.0 mils (76.2 microns)	—
Tensile Strength (resin only)	6,250 psi (43.09 MPa)	ASTM D2370
Percent Elongation (resin only)	6%	ASTM D2370
Konig Hardness (3 mil film, resin only)	171.3	ASTM D4366
Water Absorption (24-hr immersion)	0.2% weight increase	ASTM C413

\*Values represent typical laboratory results at 77°F (25°C). Variations may occur under field conditions.

**PACKAGING & COVERAGE:**

- 1.36-Gallon Kit**
- Part A – Resin: 1 Gallon
  - Part B – Hardener: 1 Quart
  - Part C – Satin Additive: 3 lbs
  - Coverage: ~600 sq ft @ 3.3 wet mils

- 5.44-Gallon Kit**
- Part A – Resin: 4 Gallons
  - Part B – Hardener: 1 Gallon
  - Part C – Satin Additive: 12 lbs
  - Coverage: ~2,400 sq ft @ 3.3 wet mils

**STORAGE & SHELF LIFE:**

- Store materials in original, unopened containers in a dry, enclosed building out of direct sunlight.
- Ideal material temperature prior to installation: 60–80°F for a minimum of 24 hours.
- Installation outside this temperature range may negatively impact workability.
- Shelf life: Minimum of 1 year in unopened containers.
- Contact Dura-Gard Resins if there are concerns regarding material condition or age.

**LIMITATIONS:**

Dura-Gard Resins 8000 Series High Wear Urethane must be applied over a properly primed or coated surface. For optimal adhesion, the basecoat should be applied within 24 hours and mechanically abraded using an abrasive buffing disc (typically 180-grit carborundum). Maximum application thickness is 4 mils per coat.

Do not allow puddling. Excessive film thickness may cause gassing and result in a fan-like surface appearance.

**IMPORTANT NOTE: Reduced chemical resistance and staining potential may occur in pigmented versions of the Dura-Gard Resins 8000 Series High Wear Urethane system.**

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**CHEMICAL RESISTANCE:**

Chemical resistance testing conducted per ASTM D1308, Test Method 3.1.1 (spot test, covered). Results based on 1-day and 7-day exposure. Coating cured for two (2) weeks prior to testing.

Reagent	1 Day	7 Days
<b>Acids - Inorganic</b>		
10% Hydrochloric Acid	E	E
30% Hydrochloric Acid (Muriatic)	E	E
10% Nitric Acid	E	E
50% Phosphoric Acid	E	G
37% Sulfuric Acid (Battery Acid)	E	E
<b>Acids - Organic</b>		
10% Acetic Acid	E	E
10% Citric Acid	E	E
Oleic Acid	E	E
<b>Alkalies</b>		
20% Ammonium Nitrate	E	E
10% Ammonium Hydroxide	E	E
50% Sodium Hydroxide	E	E
20% Sodium Chloride	E	E
<b>Solvents - Aromatic</b>		
Xylene	E	E
<b>Solvents - Chlorinated</b>		
Methylene Chloride	P	P
<b>Solvents - Ketones &amp; Esters</b>		
Methyl Ethyl Ketone (MEK)	E	E
Propylene Glycol Methyl Ether Acetate (PMA)	E	E
<b>Solvents - Alcohols</b>		
Isopropyl Alcohol	E	E
Methanol	E	E
Ethylene Glycol (Antifreeze)	E	E
<b>Solvents - Aliphatic</b>		
d-Limonene	E	E
Jet Fuel (JP-4)	E	E
Gasoline	E	E
Mineral Spirits	E	E
<b>Miscellaneous Chemicals</b>		

Brake Fluid	E	E
Bleach	E	E
Motor Oil (SAE 30)	E	E
Skydrol 500B	E	E
Skydrol LD4	E	E
10% Trisodium Phosphate	E	E
Coffee	E	E
Coke	E	E
Ketchup	E	E
Mustard	G*	G*
Red Wine	E	G*

**Rating Legend:** E = Excellent (no adverse effect; recommended) | G = Good (limited effect; short-term only) | F = Fair (not recommended) | P = Poor (little or no resistance) | \* = Only adverse effect was staining

**INSPECTION AND APPLICATION:**

**Caution! Follow all precautions and instructions prior to installation.**

**BEFORE YOU BEGIN:**

Concrete substrates must be tested for moisture vapor transmission prior to installing any coating materials. Follow industry-accepted moisture testing methods and confirm acceptable ranges before installation.

**SURFACE PREPARATION:**

Shot blasting or diamond grinding are the preferred surface preparation methods for concrete substrates. The surface should be mechanically prepared to achieve a 10–20 grit sandpaper profile. All oils, curing compounds, sealers, and surface contaminants must be completely removed prior to installation.

**MIXING:**

Dura-Gard Resins 8000 Series is supplied in 1.36-gallon and 5.44-gallon kits. Open Part A container and pour Part B into Part A.

**Gloss finish:** Add color (if applicable) and mix for 2–3 minutes using a low-speed mechanical mixer.

**Satin finish (Part C):** Slowly introduce Part C Satin Additive into the vortex of the mixer and continue mixing for an additional 2–3 minutes.

*Important: Temperature directly affects pot life and working time. Higher temperatures will significantly reduce working time. Do not mix more material than can be applied within the stated pot life.*

**APPLICATION — NO FILLERS:**

- Immediately pour the mixed material onto the prepared concrete surface.
- Squeegee material evenly at a maximum thickness of 4 wet mils.
- Back-roll using a chemical-resistant roller cover to level the coating and eliminate puddling.
- Do not allow puddles to remain, as excessive film thickness may cause surface defects.

**APPLICATION — WITH FILLERS (Glass Beads or Aluminum Oxide):**

- Immediately split the mixed material into multiple buckets.
- Apply by dipping rollers directly into the pails.
- A 1-gallon lid with holes punched in it may be placed in the bottom of each pail to prevent rollers from contacting settled fillers.

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- Avoid puddles and drip marks, as these areas may cure inconsistently.
- Rotate buckets regularly, as material will begin to set up and become more difficult to roll.

## CURING CHARACTERISTICS (MIXED COMPONENTS):

Stage	50°F	70°F	90°F
Working Time	1-2 hrs	1-2 hrs	1-2 hrs
Dry to Touch	8-12 hrs	6-8 hrs	4-5 hrs
Foot Traffic	16-24 hrs	12-16 hrs	8-16 hrs

- Maximum recoat window: Surface must be mechanically buffed prior to recoating.
- Installation temperature limits: 50°F minimum to 90°F maximum.

## POT LIFE (TYPICAL):

Approximately 1–2 hours at 70°F (21°C) and 50% relative humidity for a 1-gallon volume. Pot life will vary depending on temperature, humidity, air movement, and material mass. Higher temperature and humidity will shorten pot life.

## HUMIDITY AND DEW POINT:

- River Resins 8000 Series is a moisture-cured urethane.
- Do not install when relative humidity is below 50% or above 90% without consulting Dura-Gard Resins technical support.
- Condensation may occur if substrate temperature is below the dew point, potentially causing adhesion failure or surface blush.
- Always verify dew point conditions prior to application.
- Hazing or a greasy surface feel may indicate blush formation — do not proceed without technical guidance.

## CLEANING:

All mixing and application equipment must be cleaned immediately after use. Xylene may be used to clean tools and equipment.

## DISPOSAL:

Dispose of all materials, containers, and waste in accordance with applicable Federal, State, and Local regulations.

## SAFETY:

- Use appropriate ventilation during mixing and application.
- Avoid contact with eyes and skin.
- Skin contact: Wash immediately with soap and water.
- Eye contact: Flush eyes immediately with clean water and seek medical attention.
- Remove contaminated clothing and wash before reuse.
- For industrial use only. Refer to the Safety Data Sheet (SDS) for complete safety information.

**READ SDS (SAFETY DATA SHEET) FOR SAFETY AND PRECAUTIONS.  
USE PRODUCT AS DIRECTED. FOR INDUSTRIAL USE ONLY. KEEP OUT  
OF REACH OF CHILDREN.**

## TECHNICAL SUPPORT:

For application questions, please contact Dura-Gard Resins LLC at 330-455-5125 or visit [www.dura-gard.com](http://www.dura-gard.com).