

DuraShield Pavement Coating

Technical Data Sheet



Description:

DuraShield is a two-component, waterborne, epoxy-modified acrylic coating designed to fortify and protect asphalt pavement from weathering and other aging effects.

DuraShield has a balance of important properties including flexibility, adhesion, color stability, durability that support the preservation of asphalt pavements while also protecting the pavement from the harmful effects of oxidation.

DuraShield is shipped with factory-blended silica aggregates to provide consistent friction properties.

Advantages:

- Low odor treatment during and after installation
- Excellent chemical resistance*
- Friction properties are suitable for pedestrian and vehicular applications
- Cures hard, fast, promoting same day return to service and reducing tracking
- No adverse performance affect on mix performance in recycled asphalt pavement (RAP)*
- Safe for environmental and human health†
- Durashield SR reduces peak temperatures to mitigate asphalt damage and aging while providing a cooler surface to combat the urban heat island effect

Packaging & Shelf Life:

One unit of Durashield Pavement Coating consists of:

1 — Part A: 5 gal. (3.75 gal. net content)	1 — Part B: 1-pint (10 oz net content)
1 — Part A: 55 gal. Drum (45 gal. net content)	1 — Part B: 2 gal. (1.6 gal. net content)
1 — Part A: 255 gal. Tote (225 gal. net content)	5 — Part B: 2 gal. (1.6 gal. net content)

Shelf life is 24 months from date of manufacture in unopened containers if stored properly in a clean and well-ventilated area at 40°F – 90°F (4°C – 32°C). Storage outside this temperature range may shorten shelf life. Keep containers covered when not in use. Do not allow material to freeze.

Color:

- Asphalt
- Solar Grey

Asphalt Pavement Application Instructions:

Substrate Preparation:

The uncoated asphalt pavement surface must be dry and free from all foreign matter, including, but not limited to, dirt, dust, de-icing materials, and chemical residue.

Application:

- DuraShield is applied to asphalt surfaces using suitable spray distribution equipment (contact StreetBond® Technical Service for additional information). For small areas, a squeegee and backroll method can be used, ensuring adequate film thickness.
- The minimum coverage is 7 square yards (64 ft²) per gallon or 14 average dry mils, normally applied in 2 layers. Allow each layer to dry before applying the next layer.
- Applied film thickness, original pavement condition, and exposure to high traffic counts and turning traffic are all important considerations for service life and may suggest additional layers be specified. StreetBond® Technical Support can assist with recommended specification.
- Apply DuraShield only when the air temperature is 50°F (10°C) and rising and freezing temperatures are not in the 8-hour forecast to ensure proper cure. See Drying and Cure Guide below. No precipitation should be expected within 24 hours of application.
- For air temperatures exceeding 110°F (43°C) please contact StreetBond® Technical Support for modified application procedures.
- Allow Durashield to fully cure before opening treated pavement to traffic.

* Based on testing in accordance with Standard Specifications for Public Works Construction

† Based on lab testing by Envirochem Laboratory testing. Health Product Declaration available online via HPD Repository.

Application Coverage Conversion Guide

Thickness — Dry	Coverage	
	sq. yd./gal.	ft²/gal.
14	7.22	65
18	5.56	50
20	4.72	42
22	3.89	35
24	3.06	28

The table provides general guidance on coverage rates for various thickness applications. An application of 14 dry mils is the minimum suggested rate. The application of additional coats and total thickness can increase life expectancy in higher wear areas and on lower PCI surfaces.

Drying and Cure Time Guide:

DuraShield drying and curing times are dependent on weather conditions such as ambient temperature, relative humidity, surface temperature, and sun exposure vs shading. The data in these tables are offered as guidance and may vary in specific circumstances.

Recoat/Open-to-Traffic Time (hr)

	Direct sun & 7.5 mph wind			Indirect sun/Shade & 7.5 mph wind		
	20	50	80	20	50	80
Relative Humidity (%)						
Air Temperature (F)						
70	1.2	1.9	4.8	2.7	4.2	10.6
80	0.7	1.2	2.9	1.6	2.6	6.4
90	0.3	0.5	1.2	1.0	1.5	3.8
100	0.2	0.3	0.7	0.6	0.9	2.3
110	0.1	0.2	0.4	0.4	0.6	1.4

Warranty:

Durashield installations are covered under the StreetBond® 1-year Limited warranty. See gaf.com/roads for coverage and restrictions. Additional coverage may be available for projects that meet site and traffic condition requirements. Please contact your Streetbond representative for details.

Product Information

Type	Test Value	ASTM Test Method
Density	14.3 lb./gal. (1.7 kg/l)	ASTM D1475
Volume Solids	57% (±2)	ASTM D2697
Weight Solids	75% (±2)	ASTM D2369
VOC (calculated)	<50 g/L	
Taber Abrasion (Dry — H-10 wheel)	0.7 g/1,000 cycles	ASTM D4060
Taber Abrasion (Wet — H-10 wheel)	3 g/1,000 cycles	ASTM D4060
Freeze Point	32°F (0°C)	
Friction (Dry)	>65	ASTM E303-93 (2013)
Friction (Wet)	>35	ASTM E303-93 (2013)
Mandrel Bend	1 1/2 in. @ 23°C	ASTM D522 - 93 A
Hydrophobicity Water Absorption	< 6%	ASTM D570
Chemical Resistance (MEK Scrub)	>5,000	ASTM D2486
Shore Hardness	80.8	ASTM D2240
Solar Reflectance	Initial = >0.33 (Durashield SR only)	
Standard Colors	Asphalt and Solar Grey	

NOTE: Values stated are approximate and subject to normal manufacturing variation. These values are not guaranteed and are provided solely as a guide.

Limitations & Precautions:

Ambient and surface temperatures must be 50°F (10°C) and rising before coating application. Do not ship or store unless product is protected from freezing.

Safety & Handling:

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet (SDS) available on our website.

Cleanup:

Thoroughly rinse application equipment per standard procedure within 4 hours of completing last spray application.