



Description:

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

DuraShield SR has been specially formulated using reflective technology to provide initial solar reflectance of SR=0.33, which mitigates heat-related asphalt damage by reducing peak temperatures that accelerate asphalt binder aging*, and can provide a cooler surface in hot sunny conditions to help mitigate the urban heat island effect†

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

* Reduction of aging binder led to an estimated 20% life extension based on a study by ASU.

† Based on 12-month peer-reviewed observational study and micrometeorological analysis conducted by Altostratus. Link to original research can be found by following the link below.

‡ Based on lab testing performed by PRI Construction Materials Technology in accordance with Standard ASTM D2486.

§ 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.

Advantages:

- Higher solar reflectance than asphalt pavements with no observed negative impacts to glare, pedestrian comfort, or emissions†
- 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**

Packaging & Shelf Life:

One unit of Durashield SR 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.

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 SR is applied to road surfaces using a vehicular-mounted spray distribution system. For small areas that are difficult to access by vehicle, a squeegee and backroll method can be used, ensuring adequate film thickness.
- The minimum coverage is 5.5 square yards per gallon (2.52 lb. per sq. yd.) or 18 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. GAF Roads Technical Support can assist with recommended specification.
- Apply DuraShield SR only when the air temperature is 50°F (10°C) and rising and will not drop below 50°F (10°C) within 24 hours. No precipitation should be expected within 24 hours of application.
- For air temperatures exceeding 110°F (43°C) please contact GAF Technical Support for modified application procedures.
- Allow Durashield SR to fully cure before opening treated pavement to traffic.

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For application questions or additional instructions contact GAF Roads at **1-800-766-3411**

Product Information:

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 ½ 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
Standard Colors	Gray

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

Application Coverage Conversion Guide:

Thickness - Dry		14	18	20	22	24
Coverage	sq. yd./gal.	7.22	5.56	4.72	3.89	3.06
	lb./sq. yd.	1.45	1.89	2.22	2.70	3.44

To achieve optimal performance, please use the following reference table for target applied dry film thickness below. Wearing factors are approximated using Average Daily Traffic (ADT) counts and Pavement Condition are approximated using qualitative buckets. GAF Roads Technical Support can assist with recommendations based on provided inputs and final specification may be subject to walkthrough of the relevant road sections.

Pavement Condition	New†	14 mil	18 mil	Not recommended
	Excellent	18 mil	22 mil	
	Good	20 mil	24 mil	
	Fair or Worse	Not recommended		
		ADT* < 800	ADT 800 - 1,500 OR High Turn Area	ADT > 1,500
Wearing Factors				

Note: These recommendations are for Southern climates.
 * Single-axle equivalency for Average Daily Traffic.
 † New pavement defined as laid within <60 days since M&R or original paving.

Warranty:

GAF Roads installations are covered under the GAF Pavement Coatings 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 GAF Roads representative for details.

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:

Run GAF cleaning solution through application equipment per standard procedure within 4 hours of completing last spray application.

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Drying and Cure Time Guide:

DuraShield SR 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.

Direct Sun:

	Recoat/Open-to-Traffic Time (hr)									
	Direct sun & 7.5 mph wind					Indirect sun/Shade & 7.5 mph wind				
	20	30	50	70	80	20	30	50	70	80
Relative Humidity (%)										
Air Temperature (F)										
70	1.2	1.4	1.9	3.2	4.8	2.7	3.0	4.2	7.0	10.6
80	0.7	0.8	1.2	1.9	2.9	1.6	1.8	2.6	4.2	6.4
90	0.3	0.3	0.5	0.8	1.2	1.0	1.0	1.5	2.6	3.8
100	0.2	0.2	0.3	0.5	0.7	0.6	0.7	0.9	1.5	2.3
110	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.6	0.9	1.4
120	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.3	0.6	0.8

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