



Diathon® DS Roof Coating

Product Data Sheet



PRODUCT DESCRIPTION

Diathon® DS Roof Coating is an elastomeric acrylic coating that provides good weatherability, ultraviolet resistance, and fire retardancy for the protection of polyurethane foam.

Diathon® DS Roof Coating is a single package coating system designed for easy application with conventional or airless spray equipment, as well as brush or roller.

WARRANTY

See applicable warranties and guarantees for complete coverage and restrictions.

PACKAGING & SHELF LIFE

5 gallon (19 liter) pail
54 gallon (204 liter) bucket

Shelf life 18 months if unopened containers stored between 40°F and 70°F (4°C - 21°C).

BASIC USES

Diathon® DS Roof Coating was specifically developed for protecting sprayed polyurethane foam insulation from degradation caused by normal weathering, aging and ultraviolet exposure. Diathon® DS Roof Coating is used for protection of sprayed-in-place polyurethane foam on

sloped roofs and as a topcoat on existing foam roofs previously coated with compatible coating systems.

Diathon® DS Roof Coating Topcoat is available in White and Light Gray.

PHYSICAL PROPERTIES

DIATHON® DS ROOF COATING	
Solids by Weight	50% (±2) [ASTM D2369]
Solids by Volume	66% (±3) [ASTM D5201]
Tensile Strength	265 psi (±20) (1.83 MPa) [ASTM D2370/D6083]
Elongation	200% (±20) [ASTM D2370/D6083]
Hardness	60 to 70 Shore A [ASTM D2240]
Permeance	2.7 US perms at 22 dry mils (155 ng/Pa.s.m ² @ 560 microns) [ASTM E96]
Fire Resistance	UL 790 Class "A" classified system over spray-applied polyurethane foam on non-combustible decks; Class A, B, C maintenance and repair coating

Surface Dry Time for Foot Traffic Resistance	5 hours at 75°F (24°C), 50% RH White at 16 wet mils (406 microns) 3 hours at 75°F (24°C), 50% RH Medium Gray at 16 mils wet (406 microns) <small>*Required times will increase @ higher humidities</small>
Low Temperature Flexibility	Passes 180° flex over ½" (1.2 cm) mandrel @ -5°F (-21°C) [Federal Test Method No. 141a-6221]
Temperature Limits for Service Conditions	0°F to 200°F (-18°C to 93°C)
Colors	White and Light Gray



APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION: Polyurethane foam and adjacent surfaces to be coated shall be free of any degraded foam, grease, oil, dirt, or other contaminants that could interfere with proper adhesion. Polyurethane foam shall be completely dry and frost-free before coating. Any physical damage to the polyurethane foam shall be repaired before coating application commences. Any oxidized polyurethane foam shall be repaired or replaced. Do not coat directly over polyurethane foam that has been mechanically scarified or sanded.

MIXING: Thoroughly mix using a power mixer for a minimum of 5 minutes prior to application. For 5-gallon (19 liter) pails, use a 3" (76 mm) minimum diameter mixing blade; for 55-gallon (208 liter) drum, use a 6" (152 mm) minimum diameter blade.

APPLICATION: Apply to polyurethane foam surfaces between 24 and 72 hours after final application, depending on climate and manufacturer (refer to foam manufacturer for more information). Coating should be applied within this time frame to prevent surface oxidation that would

interfere with coating adhesion. Apply product with an airless sprayer, covering the surface at an even rate. Use an airless spray pump with a 1 gallon-per-minute (3.8 L/minute) output and 2,000 psi (13,790 kPa) pressure capability. Use a reversible, self-cleaning tip with orifice size 0.027"–0.039" (0.69–0.99 mm) and a fan angle of 40° or 50°. Filter screens should be 60 mesh or larger. Use a 3/8" (10 mm) minimum inside diameter, nylon high-pressure-type hose for lengths up to 75 ft. (23 m) from pump. For 75 ft.–200 ft. (23–51 m), use 1/2" (13 mm) inside diameter hose added to pump side of existing 3/8" (10 mm) hose to maintain pressure and delivery. Over 200 ft. (51 m), use 5/8" to 3/4" (16 to 19 mm) inside diameter hose added to pump side of existing hose. Apply at a minimum rate of 100 ft²/gallon (2.5m²/L) per coat. Coating must be applied in two or more separate coats to ensure proper coverage and cure rate, and to achieve a pinhole-free continuous film. Each coat shall be applied in a direction perpendicular to the previous coat to ensure positive coverage. Each coat of coating must be dry and cured before an additional coat is applied. All surfaces must be uniformly coated and free from voids, pinholes, or blisters.

GAF Liquid-Applied

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For technical, system, and warranty information, visit gaf.com or call 1-800-766-3411.

continued on back



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APPLICATION INSTRUCTIONS, CONT'D

APPLICATION NOTE: Requires complete evaporation of water to cure. Cool temperatures and high humidity slow cure.

Apply in two coats at a minimum total rate of 1-1.5 gallons per 100 ft² (.4-.6 l/m²). Consult GAF's product specifica-

tions for specific film thickness requirements to qualify for GAF's product warranty.

LIMITATIONS & PRECAUTIONS

Diathon® DS Roof Coating should not generally be used over cold storage tanks or buildings where a vapor barrier coating is required. **Diathon® DS** Roof Coating shall not be used for interior applications in place of a thermal barrier.

Diathon® DS Roof Coating will freeze and become unusable at temperatures below 32°F (0°C). Do not ship or store unless protection from freezing is available.

Do not apply **Diathon® DS** Roof Coating at temperatures

below 50°F (10°C), or when there is a possibility of temperatures falling below 32°F (0°C) within a 24-hour period after application. **Diathon® DS** Roof Coating requires complete evaporation of water to cure. Cool temperatures and high humidity retard cure. Do not apply if weather conditions will not permit complete cure before rain, dew, fog or freezing temperatures occur. Do not apply in the late afternoon if heavy moisture condensation can appear during the night.

SAFETY & HANDLING

For specific information regarding safe handling of this material please refer to OSHA guidelines and product Safety Data Sheet (SDS).

CLEAN UP

Use water and detergent to thoroughly flush equipment. Purge the water from the system using Mineral Spirits. Leave the solvent in the lines and equipment until next use. It is not recommended practice to leave **Diathon® DS** Roof Coating in the pump or hoses.

GAF

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gaf.com

See applicable warranties and guarantees for complete coverage and restrictions.