



Diathon® Base Roof Coating

Product Data Sheet



PRODUCT DESCRIPTION

Diathon® Base Roof Coating is a high solids elastomeric acrylic coating to be used in conjunction with Diathon® Roof Coating Topcoat to provide superior weatherability, ultraviolet resistance, and fire retardancy for the protection of polyurethane foam. Diathon® Base Roof Coating is a single-package basecoat/topcoat system designed for easy application with conventional or airless spray equipment, as well as brush or roller.

PACKAGING & SHELF LIFE

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

Shelf life 12 months if unopened containers stored between 40°F and 90°F (4°C and 32°C).

Single-component, ready-to-use material. Diathon® Base Roof Coating may appear well mixed, but upon standing will settle into a two-stage suspension. Thoroughly mix the contents of all containers using a power mixer for a minimum of 5 minutes prior to application. For 5 gallon pails, use a 3" (7.5 cm) minimum diameter mixing blade; for 55 gallon drum, a 6" (15 cm) minimum diameter blade is recommended.

BASIC USES

Diathon® Base Roof Coating was specifically developed for building film thickness prior to the application of an appropriate Diathon® Roof Coating. The system effectively protects sprayed polyurethane foam insulation from degradation caused by normal weathering, aging and ultraviolet exposure. Diathon® Roof Coating is used for protection of sprayed-in-place polyurethane foam on sloped roofs, ambient and hot storage tanks, and can also be used over existing foam roofs previously coated with compatible coating systems.

Diathon® Base Roof Coating is manufactured in standard Light Gray, Medium Gray, and Dark Gray which requires topcoating. Diathon® Roof Coating is available in White, Light Gray, Light Tan and Tan, which are certified to meet ENERGY STAR®, Cool Roof Rating Council (CRRC) and LEED reflectance criteria.

PHYSICAL PROPERTIES

DIATHON® BASE ROOF COATING	
Solids by Weight	67% (±2) [ASTM D2369]
Solids by Volume	51% (±2) [ASTM D5201]
Tensile Strength	182 psi (±20) (1.83 MPa) [ASTM D2370/D6083]
Elongation	135% (±20) [ASTM D2370/D6083]
Hardness	60 to 70 Shore A [ASTM D2240]
Fire Resistance	UL 790 Class "B" classified system over spray-applied polyurethane foam on combustible decks, when used with Diathon® Roof Coating Topcoats and Class A in non-combustible decks.
VOC	<50 g/L

Dry Time to Walk On	4 hours at 75°F (24°C), 50% R.H. Light Gray at 16 wet mils (406 microns) <small>*Required times will increase at higher humidities</small>
Temperature Limits for Normal Service Conditions	0°F–200°F (-18°C–93°C)
Permeance	2.7 US perms at 22 dry mils (155 ng/(Pa.s.m²) @ 560 microns) [ASTM E96]
Low Temperature Flexibility	Passes 180° flex over 1/2" (1.2 cm) mandrel @ -5°F (-21°C) [Federal Test Method No. 141a-6221]
Standard Colors	White, Light Gray, and Light Tan

APPLICATION INFORMATION

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°.

In-line filter screens should be 60 mesh or larger. Use a 1/2" (12.7 mm) minimum inside diameter 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.

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

GAF Liquid-Applied

January 2016, supersedes March 2015

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

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LIMITATIONS & PRECAUTIONS

Diathon® Base Roof Coating is very cohesive and difficult to spray at material temperatures below 60°F (16°C). Store product in a warm area prior to application to bring material temperature to 70°F (21°C) or greater.

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

Diathon® Base 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**® Base 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**® Base 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, refer to product Safety Data Sheet (SDS). For specific information on safety requirements, refer to OSHA guidelines.

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**® Base Roof Coating in the pump or hoses.

GAF

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gaf.com

See applicable warranties and guarantees for complete coverage and restrictions.