Rhino Linings®

DURATITE™ 1065

Data Sheet

DESCRIPTION: DuraTite® 1065 is single component, aliphatic, acrylic elastomeric roof coating that demonstrates excellent adhesion to polyurethane foam, masonry, most metal, or most rigid cover board, and smooth surfaced or granulated built-up, modified bitumen and PVC single ply roofing systems. Once fully cured, DuraTite 1065 demonstrates exceptional weatherability and UV resistance and can be used as a base coat/top coat roofing system, or as a top coat over urethane or butyl coatings. The highly reflective and bright-white surface of DuraTite 1065 lowers roof surface temperatures, which in turn reduces solar heat-gain, lowers cooling costs, and minimizes the effects of thermal shock on the roof and structure.

TYPICAL USES:

- Coating over spray polyurethane foam (SPF), masonry, most metal, or most rigid cover board, and smooth surfaced or granulated built-up, modified bitumen and PVC single ply roofing systems
- Commercial and industrial roof coating

FEATURES & BENEFITS:

- Easy and convenient to apply
- Fast drying
- Extends roof life
- Can be applied with sprayer, brush or roller
- UL 790 Class A Rating over non-combustible deck
- CRRC Rated; meets ANSI/CRRC S100 Standards
- Energy Star® Certified Product

CHEMICAL PROPERTIES:	Test	Result
Specific Gravity (grams/cc)	ASTM D-2939	1.38 – 1.5
Specifc Weight (lbs/gal)		11.5 – 12.5
Solids by Volume	ASTM D-2697	50% ± 2
Solids by Weight	ASTM D-1644	65% ± 2
Volatile Organic Compounds (g/l)	EPA Method 24	< 50
Flash Point	ASTM D-1310	>212°F (100°C)
Shelf Life - Unopened Containers		6 months

REACTION TIME & COVERAGE:	Test	Result			
Dry to Touch @ 77°F (25°C)*		30 – 90 minutes			
Tack Free @ 77°F (25°C)*		1 – 4 hour			
Recoat Time @ 77°F (25°C)*		2 – 8 hours			
Cure Time @ 77°F (25°C)*		10 – 30 days			
Theoretical Coverage**		DFT	WFT	Application Rate	Coverage Rate
		12 mil	23.5 mil	1.47 gal/sq	58 sqft/gal
		18 mil	35.3 mil	2.2 gal/sq	45 sqft/gal
		24 mil	47.1 mil	2.93 gal/sq	34 sqft/gal
		36 mil	70.6 mil	4.4 gal/sq	23 sqft/gal
		48 mil	94.1 mil	5.8 gal/sq	17 sqft/gal
Flash Point	ASTM D-1310	>212°F (100°C)			

*Dry and cure times are dependent upon mil thickness and temperature and relative humidity at the time of application. High temperatures and low relative humidity will accelerate the drying and curing process, while low temperatures and high relative humidity will slow the process. **Theoretical Coverage is based on 0% loss and is dependant on surface texture and porosity of substrate.

TYPICAL PHYSICAL PROPERTIES:	Test	Result
Hardness (Shore A):	ASTM D-2240	60 ± 5
Tensile Strength (psi):	ASTM D-2370	675 ± 25
Elongation (%):	ASTM D-2370	350 ± 25
Tear Resistance (pli) Die C:	ASTM D-624	88 ± 5

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DURATITE® 1065 *(continued)*:

Permeability (perms) @ 20 mils:	ASTM D-1653	6.75
Reflectivity (white):	ASTM C-1549	85%
Emissivity (white):	ASTM C-1371	0.85

PROCESS TEMPERATURE AND ENVIRONMENT CONDITIONS: DuraTite 1065 can be spray-applied using approved equipment. The system settings required to achieve a quality coating application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum quality.

DO NOT APPLY WHEN ROOF SURFACE IS BELOW 50ºF (10°C), OR WHEN WEATHER CONDITIONS WILL NOT ALLOW ADEQUATE CURING OF THE COATING. DO NOT APPLY IF RAIN, DEW OR FREEZING TEMPERATURE ARE LIKELY TO OCCUR PRIOR TO WHEN THE PRODUCT WILL DRY AND CURE. DO NOT APPLY WHEN AMBIENT TEMPERATURE IS WITHIN 5 DEGREES OF THE DEW POINT OR IS EXPECTED TO BE WITHIN 5 DEGREES OF THE DEW POINT WITHIN 24 HOURS FOLLOWING APPLICATION. DO NOT APPLY AT TEMPERATURE >120°F (48.9°C).

Application in direct sunlight or on hot metal surfaces may skin too quickly resulting in blistering if product is applied too heavily. DuraTite 1065 should not be applied on a roof surface where ponding water can collect.

Equipment	Processing Pressure	Equipment Output	Gun Tip
High pressure airless sprayer	3300 psi	> 1.5 gallons per minute	0.17 - 0.029 reversible 40-50° fan angle

Acrylic Temperature	Ambient Temperature	Substrate Temperature	Humidity
>55°F (12.8°C)	50 – 110°F (10 – 43.3°C)	40 – 135°F (4 – 57.2°C)	<85% RH

PREPARATION: Any physical damage to the roof must be repaired prior to coating application. Roof surface must be clean, dry and free of any mildew, oil, grease, dirt, loosely adhered roofing materials, or other foreign contaminants that would prevent proper adhesion. Any such contaminants must be removed from the application surface via power washer, and/or broom using the appropriate detergents and/or bleach and then roof surface rinsed with clean water. After contaminants are removed, and roof surface has been rinsed, application surfaces must be checked for compatibility. Always perform a coating adhesion test before doing the entire roof. Depending on the roof surface type and condition, a primer may be required to ensure proper adhesion.

MIXING INSTRUCTIONS: DO NOT THIN. Prior to use, thoroughly mix DuraTite 1065 with an air or electrically driven power mixer for a minimum of 5 minutes. Mixer speed should be set fast enough to uniformly mix the entire container but not so fast as to introduce air into the coating while mixing. For 5 gallon pail, use a minimum 3" mixing blade, for drums use a minimum 6" mixing blade. Previously opened containers, or containers that have been stored for an extended length of time, may develop a skin on top of the coating, which must be removed prior to mixing.

APPLICATION INSTRUCTIONS: The successful installation of DuraTite 1065 will depend on the equipment capabilities and settings, the temperature of the coating in the container, ambient temperature and relative humidity, substrate temperature and moisture content, substrate type and condition. It is the responsibility of the applicator to take these factors into consideration prior to installation. If material appears thickened due to storage at cold temperatures, store material for a sufficient length of time in a warm area prior to application to bring material temperature to greater than 50°F (10°C). No thinning or reducing is necessary. DuraTite 1065 is an evaporative cure product and must be applied in ambient conditions that enable evaporation in order to cure properly.

DuraTite 1065 can be sprayed, brushed, or rolled. Ensure proper pressure and delivery to the spray gun when using airless spray equipment. Use the following rules for hose diameter and length:

Min. 3/8" ID up to 75' Min 1/2" ID up to 200'
Min 3/4" ID greater than 200' Min 3/8" ID and Max 6' L for whip hose if applicable

ALWAYS use larger diameter hose sections nearest the pump. Use reversible, self-cleaning gun tip with an orifice size of .027-.039 with a 40°-50° fan angle. ALWAYS use components with the proper pressure ratings that are in good working order. A natural bristle brush or a medium nap roller can be used for touch-up and edge work, or for small areas that are not practical for spray application. Avoid rapid rolling to minimize pinholes and bubbling.

The actual dry film thickness achieved in the field application is dependent upon weather conditions, method of application, and surface textures. It is the sole responsibility of the coating applicator to apply the proper amount of material required to achieve the minimum dry film thickness for the project requirements. Do not apply DuraTite 1065 at a rate greater than 1.5 gallons per 100 sq.ft. per coat. The first coat should be applied at the rate of 1.5 gallon per 100 sq.ft. which will achieve a theoretical yield of 12.0 dry mils on a smooth, non-porous surface. A second application of DuraTite 1065 shall be applied at a rate of 1 gallon per 100 sq.ft., which will theoretically achieve an additional 8.0 dry mils on a smooth, non-porous surface. A third or fourth coat of DuraTite 1065 may be required to achieve the specified dry film thickness. The total application of DuraTite 1065 should not be less than 2.5 gallons per 100 sq.ft.

Polyurethane foam should be coated within 24 hours after foam has been sprayed and additional coats of DuraTite 1065 should be applied as soon as previous coat is dry and cured to ensure full, uniform adhesion.

It is recommended that DuraTite 1065 be applied in two or more separate coats to ensure proper coverage, cure rate, and to

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DURATITE® 1065 *(continued)*:

provide a continuous, durable film without pinholes. Individual coats of DuraTite 1065 should be applied in perpendicular direction to the previous coat. It is recommended that the edges, joints, and seams, in the roof be precoated. For application in high humidity or low temperature environments, apply product in thin passes to promote proper drying and curing.

It is the responsibility of the building owner(s) to verify that your roofing contractor maintains proper credentials, insurance, and licenses and is properly trained to safely install roof coating products.

Clean spills immediately with water. After cleaning with water, flush spray equipment with mineral spirits to prevent rusting of equipment.

NOT RECOMMENDED FOR: Do not apply to surfaces previously coated with coal-tar based products nor fluoropolymer coatings such as Kynar® finishes. Do not apply to any surface where moisture is present or when conditions are conducive to high moisture condensation.

SUBSTRATES: Spray polyurethane foam (SPF), masonry, most metal, or most rigid cover board, and smooth surfaced or granulated built-up, modified bitumen and PVC single ply roofing systems.

HOW SUPPLIED: Chemical is packaged in 55 gallon (208 L) drum with net weight of 633 pounds (287.1 kg) or 5 gallon (18.9 L) pail with net weight of 56 pounds (25.4 kg).

DuraTite 1065 White Part #: FFRC-WATERSHED 1065E WH
DuraTite 1065 Gray Part #: FFRC-WATERSHED 1065E GRAY

COLOR OPTIONS: Standard colors: white or gray. All other colors are custom matched for the specific application. Color chips or samples must be furnished for all custom colors and samples must be approved by customer prior to mass production.

STORAGE: DuraTite 1065 should be stored between 35 – 75°F (4 – 32°C) out of direct sunlight. Do not allow material to freeze.

SAFETY PRECAUTIONS: Health Considerations - Consult the Rhino Linings® Safety Data Sheets (SDS)

This chemical system requires the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

For Your Protection: The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors.

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