

Part #

DuraTite 1070 White Part #: FFRC-WATERSHED 1070 WH

DuraTite 1070 Gray Part #: FFRC-WATERSHED 1070 GRAY

DuraTite 1070 Tan Part #: FFRC-WATERSHED 1070 TAN

DESCRIPTION:

DuraTite® 1070 is a high quality, plasticizer free, single component, water-based, 100% acrylic elastomeric coating for spray, brush, or roller application. DuraTite 1070 is designed to provide a long lasting, flexible membrane that will retain its flexibility. A formulation utilizing specialized pigments and biocides provides maximum UV resistance while minimizing coloration from dirt accumulation. DuraTite 1070 has excellent adhesion to most surfaces including metal, most single-ply roofs, wood, and concrete. Once applied, DuraTite 1070 has the unique ability to breathe, providing a completely watertight membrane while allowing trapped moisture to escape.

TYPICAL USES:

- Protective membrane for most roofing surfaces including: galvanized metal, concrete, PVC, hypalon, EPDM, polyurethane foam, and primed smooth and granulated asphaltic surfaces.

FEATURES AND BENEFITS:

- Easy and convenient to apply.
- Fast drying.
- Extends roof life.
- Can be applied with airless sprayer, brush, or roller.
- UL 790 class A rating over non-combustible deck.
- UL 790 class B rating over combustible deck.
- CRRC rated. meets ANSI/CRRC S100 standards.
- Energy Star® certified product.
- Title 24 compliant.

CHEMICAL PROPERTIES:

	Test	Result
Specific Gravity (grams/cc)	ASTM D-2939	1.44
Specific Weight (lbs/gal)		12.02
Solids by Volume	ASTM D-1653	60% ± 3
Solids by Weight	ASTM D-1644	70% ± 3
Volatile Organic Compounds (g/l)	EPA Method 24	< 50
Flash Point	ASTM D-1310	>212° F (100° C)
Shelf Life - Unopened Containers		12 Months

REACTION TIME AND COVERAGE:

Test	Result
Dry to Touch at 77° F (25° C)*	1 hour
Tack Free at 77° F (25° C)*	4 – 8 hours
Recoat Time at 77° F (25° C)*	2 – 8 hours

Theoretical Coverage**	DFT	WFT	Application Rate	Coverage Rate
	12 mil	20 mil	1.25 gal/sq	80 sqft/gal
	18 mil	30 mil	1.87 gal/sq	50 sqft/gal
	24 mil	40 mil	2.49 gal/sq	40 sqft/gal
	36 mil	60 mil	3.74 gal/sq	27 sqft/gal
	48 mil	80 mil	4.99 gal/sq	20 sqft/gal
Flash Point	ASTM D-1310		>212° F (100° C)	

*Dry and cure times are dependent upon mil thickness, 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 dependent on surface texture and porosity of substrate.

TYPICAL PHYSICAL PROPERTIES:

	Test	Result
Hardness (Shore A):	ASTM D-2240	50 ± 55
Tensile Strength (psi):	ASTM D-2370	235 ± 25
Elongation (%):	ASTM D-2370	125 ± 25%
Tear Resistance (pli) Die C:	ASTM D-624	70.0
Permeability (perms) at 22 mils:	ASTM D-1653	3.8
Weathering/UV Resistance (6,000 hrs):	ASTM G-53	No Degredation
Reflectivity (white):	ASTM C-1549	69% aged 3 yr
Emissivity (white):	ASTM C-1371	0.92% aged 3 yr
SRI Value		99

PROCESS TEMPERATURE AND ENVIRONMENT CONDITIONS:

DuraTite 1070 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.

Application in direct sunlight or on hot metal surfaces may skin too quickly resulting in blistering if product is applied too heavily. DuraTite 1070 should not be applied on a roof surface where ponding water can collect.

Equipment	Processing Pressure	Equipment Output	Filter Screen
30:1 or 45:1 airless sprayer	3000 – 4000 psi	> 2.5 gallons per minute	30 mesh or larger

Acrylic Temperature	Ambient Temperature	Substrate Temperature	Humidity
>65° F (18.3° C)	50 – 110° F (10 - 43.3° C)	50 – 135° F (10 - 57.2° C)	<85% RH

PREPARATION:

Surface must be clean and dry. Application is not recommended on roofs with slopes less than 1/8 in 12" or where ponded water is present. Do not apply over wet substrates or when inclement weather is imminent. Complete cure is required to a complete evaporation of water. Cool temperatures and high humidity retard cure. It is not intended for use as a thermal barrier.

MIXING INSTRUCTIONS:

DO NOT THIN. Prior to use, thoroughly mix DuraTite 1070 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:

This product may be brushed, rolled or sprayed on a clean, dry surface. If sprayed, material should be at least 75° F. Before applying additional coat, the previous coat must be completely dry and cured. If any contamination is present on the cured surface, it must be washed and completely dry before application of subsequent coats.

This product cures by water evaporation only. Product must not be applied when the ambient temperature is below 50° F or if there is any possibility it could fall below 32° F within 24 hours of application. Application is not recommended if rain or dew is likely to occur before product dries. In high humidity conditions late afternoon applications should be avoided as overnight dew formation on uncured surface can cause coating wash-off.

The successful installation of DuraTite 1070 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 65° F. No thinning or reducing is necessary. DuraTite 1070 is an evaporative cure product and must be applied in ambient conditions that enable evaporation in order to cure properly.

DuraTite 1070 can be sprayed, brushed, or rolled. When using airless spray equipment, to ensure proper pressure and delivery to the spray gun, 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

COVERAGE RATE:

Apply at a rate of 1.5 gallons per 100 sq. ft. (24 wet mils). Surface texture and wind will affect applied mil thickness.

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. Do not apply at a rate greater than 1.5 gallons per 100 sq.ft. per coat.

Polyurethane foam should be coated within 24 hours after foam has been sprayed and additional coats of DuraTite 1070 should be applied as soon as previous coat is dry and cured to ensure full, uniform adhesion.

It is recommended that DuraTite 1070 be applied in two or more separate coats to ensure proper coverage, cure rate, and to provide a continuous, durable film without pinholes. Individual coats of DuraTite 1070 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 the roofing contractor maintains proper credentials, insurance, and licenses and is properly trained to safely install roof coating products.

DO NOT USE: Do NOT Apply where standing water is present. The National Roofing Contractors Association considers ponding water on any roof unacceptable.

SUBSTRATES:

Polyurethane foam, concrete, masonry, primed metal, primed wood, and primed asphalt.

HOW SUPPLIED:

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

COLOR OPTIONS:

Standard colors: white, light gray and 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 1070 should be stored between 35 – 75° F (1.7 – 23.9° 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 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 end users and processors.

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**Contact Rhino Linings Technical Support at
(858) 450-0411 ext. 2 for additional questions.**

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