

Part #TGCC2E ThermalGuard™ CC2 ECO
DESCRIPTION

ThermalGuard™ CC2 ECO is a fast set, hydrofluoro-olefin (HFO) spray polyurethane foam (SPF) insulation designed for use in residential and commercial structures, exterior foundation or perimeter insulation, below grade applications, exterior tank/pipe insulation, etc. ThermalGuard™ CC2 ECO is applied as a liquid and expands 25x in seconds to fill and seal building cavities of any shape and size. It exhibits superior thermal insulation, air-barrier, and sound attenuation properties compared to conventional insulation materials. Once fully cured ThermalGuard™ CC2 ECO remains rigid maintaining significant structural strength and thermal insulation properties in adverse conditions across a wide variety of applications.

FEATURES AND BENEFITS

- Class 1 Fire Rated
- ICC-ES ESL-1121
- No Ozone Depleting Substances
- Global Warming Potention (GWP) of 1
- Low Odor During Application and Produces No Toxic Vapors After Application
- Seals, Insulates and Minimizes Uncontrolled Air Movement Into a Building Envelope
- Reduces Energy Consumption From Heating and Cooling

TYPICAL USES

- Insulation Foam for Walls, Ceiling, Roof Decks, Crawlspace
- Residential, Commercial and Industrial Building Insulation

CHEMICAL PROPERTIES	TEST	Isocyanate (A)	Resin (B)
Specific Gravity (grams/cc)	ASTM D-1475	1.23	1.19
Viscosity, cps	ASTM D-2196	200-250	600-900
Mix Ratio, Parts Per Volume		1	1
Cream Time @ 77°F (25°C)		2-4 seconds	---
Rise Time @ 77°F (25°C)		10-12 seconds	
Initial Cure Time (hours)		<1	
Total Cure Time (hours)		24	
Shelf Life-Unopened Containers		6 months	6 months

TYPICAL PHYSICAL PROPERTIES	TEST	RESULT
Density @ 2" (nominal)	ASTM D-1622	1.8 lb/ft ³ (25.6 kg/m ³)
Tensile Strength (psi)	ASTM D-1623	40
Compressive Strength (psi)	ASTM D-1621	20-25
Closed-Cell Content (%)	ASTM D-2856	>90
Dimensional Stability (%)	ASTM D-2126	<4
R-Value @ 72.5°F (22.5°C)	ASTM C-518	6.7/inch
Fire Rating	ASTM E-84	Class 1
Flame Spread Index	ASTM E-84	≤25 Flame (10)
Smoke Development @ 4 inches	ASTM E-84	≤ 450 Smoke (300)

THERMALGUARD™ CC2 ECO

PROCESSING PARAMETERS

ThermalGuard™ CC2 ECO must be spray-applied using approved equipment. The system settings required to achieve quality spray foam application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum foam quality.

Isocyanate (A) Resin (B) Components	Hose Temperature	Processing Pressure	Relative Humidity
130°F (54.4° C)	130°F (54.4°C)	900-1400 psi	<85%

Substrate Temperature	Substrate Moisture Content	Maximum Lift Thickness
32-120°F (0-48.9° C)	<15%	2"

PREPARATION

Surface must be clean, dry and free of any mildew, oil, grease, dirt, loosely adhered materials, or other foreign contaminants that would prevent proper adhesion. Moisture content is critical to proper adhesion. If moisture content cannot be determined or exceeds 15%, a primer is recommended. Moisture effects the adhesion of the foam. Relative humidity must not exceed 85%. When heating a building, the relative humidity can change drastically and should be constantly monitored.

APPLICATION INSTRUCTIONS

ThermalGuard™ CC2 ECO should be installed by independent SPF contractors. It is recommended that building owners verify that the SPF insulation contractor maintains proper credentials, insurance, and licenses and is properly trained to safely install SPF insulation products.

ThermalGuard™ CC2 ECO demonstrates excellent adhesion to various substrates when installed according to manufacturer specifications. Allow a minimum of 2 hours for full off-gas and cure before application of a primer, topcoat, or intumescent paint. For best results apply primer, topcoat, or intumescent coating within 72 hours of installation of foam. ThermalGuard™ CC2 ECO should be installed in 2-3 inch tick uniform passes, and subsequent passes should not be applied within 20 minutes of the previous pass.

If necessary, ThermalGuard™ CC2 ECO may be applied at a thickness up to 6.5 inches in one pass. **It is the applicator's responsibility to test lift thickness for a particular application prior to commencing with installation to ensure that the product can be installed safely at the desire thickness without risk of charring or fire.** Thin passes (1/4" or less) are not recommended even to cold surfaces.

ThermalGuard™ CC2 ECO should not be left exposed to sunlight, as UV light will rapidly degrade foam. Do not use near high heat or open flame.

ThermalGuard™ CC2 ECO must be covered with an approved 15-minute thermal barrier when used as insulation for residential or commercial buildings. Installation must comply with all applicable building codes.

SUBSTRATES

ThermalGuard™ CC2 ECO is chemically and physically compatible with all common building materials including electrical wiring, wood, metal, concrete, plastic (PVC), copper, vinyl, and glass.

HOW SUPPLIED

Net weight per set is 990 pounds (449.5 kg). A set of ThermalGuard™ CC2 ECO consists of one (1) 55 gallon (208 L) drum of 'A' component and one (1) 55 gallon (208 L) drum of 'B' component.

STORAGE

ThermalGuard™ CC2 ECO should be stored between 50-90°F (10-32.2° C) out of direct sunlight. Do not allow material to freeze.

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SAFETY PRECAUTIONS

Health Considerations: Consult the Rhino Linings® Safety Data Sheet (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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