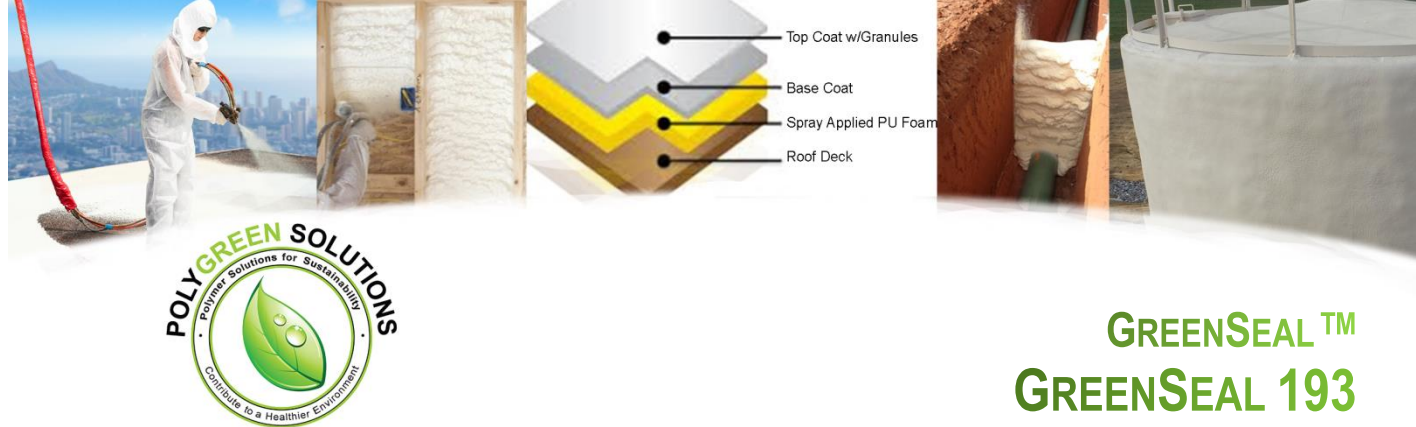




GREENSEAL™ GREENSEAL 193

DESCRIPTION: *Formulated for low temperature application.

GreenSeal 193 is a non-ozone depleting, closed cell spray foam designed for residential and commercial applications, including but not limited to; all residential spaces, crawl spaces, commercial structures, exterior foundations, perimeter insulation, tank and pipe insulation, etc. Once fully cured the insulation remains rigid and provides significant structural strength and thermal insulation properties. It is low odor during application and upon curing. GreenSeal 193 meets or exceeds minimum building code requirements for fire safety; Class 1 and Appendix X compliant.

Physical Property	Test	Result
Core Density (nominal)	ASTM D-1622	2.0 lb/ft ³
R-Value	ASTM C-518	6.85 @ 1"
Tensile Strength (psi)	ASTM D-1623	70
Compressive Strength	ASTM D-1621	40
Water Vapor Permeability (perm)@ 2"	ASTM E-96	.8
Air Leakage (L/s/m ² @75Pa @ 1")	ASTM E-283	0.002
Dimensional Stability (%)	ASTM D-2126	<4 Δ
Fire Rating	E-84	Class 1
Flame Spread Index	E-84	≤ 25
Smoke Development	E-84	≤ 450
Closed Cell Content (%)	ASTM D-2856	96
Viscosity (cps) B Component	ASTM D-2196	900-1200
A Component		200-250

Typical Uses

- Insulation Foam for; walls, ceilings, rooflines, crawlspaces, subfloors.
- Residential, Commercial, Industrial.

Features and Benefits

- ICC-ES Pending
- Appendix X compliant without any intumescent coatings.
- NFPA 286 Pending; Thermal Barrier compliant with Flame Control 60-60A or Fireshell F10E Coating.
- Class 1 fire rated.
- Low Odor during application. Produces no toxic vapors after installation.
- 245fa-blown, non-ozone depleting agent.
- Monolithic Seal minimizes thermal conductivity and uncontrolled air movement.
- Reduces Energy consumption.

Process Guidelines

- *Condition material to 75°-85° F prior to application. Material that is cold or too hot may result in off ratio mixing.
- Equipment Temperatures for hose and preheaters set; 115°-145° F.
- Equipment Pressure; 900-1400 psi.
- Substrate; 20° – 105° F
- Ambient; 0° - 105° F
- Substrate Moisture; < 19%
- Cream Time @ 77° F; 4-6 seconds
- Rise Time @ 77° F; 10-12 seconds

PREPARATION: GreenSeal 193 resin (B) does not require agitation. Do not pre-heat or recirculate resin (B) as doing so will result in the “boiling off” of the 245fa blowing agent which will result in poor yield and poor foam performance.

APPLICATION INSTRUCTIONS: GreenSeal 193 is 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.

GreenSeal 193 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. GreenSeal 193 should be installed at a maximum thickness of 4 inches per pass with a minimum of 30 minutes between passes. IT IS THE APPLICATOR'S RESPONSIBILITY TO TEST LIFT THICKNESS FOR A PARTICULAR APPLICATION PRIOR TO COMMENCING INSTALLATION TO ENSURE THAT THE PRODUCT CAN BE INSTALLED SAFELY AT THE DESIRED THICKNESS WITHOUT RISK OF CHARRING OR FIRE.

GreenSeal 193 should not be left exposed to sunlight, as UV light will rapidly degrade foam. Do not use near high heat or open flame. Do not apply when Relative Humidity is higher than 80%.

GreenSeal 193 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. Do not install GreenSeal 193 at a thickness exceeding 4 inches per pass and do not apply subsequent passes within 30 minutes of the previous pass.

SUBSTRATES: GreenSeal 193 is chemically & physically compatible with most common building materials including electrical wiring, wood, metal, concrete, plastic (PVC), copper, vinyl, and glass. It is the responsibility of the contractor to check substrate compatibility prior to starting of the job.

HOW SUPPLIED: Net weight per set is 965 pounds . A set of GreenSeal 193 consists of one (1) 55 gallon drum of 'A' component and one (1) 55 gallon drum of 'B' component.

STORAGE: GreenSeal 193 should be stored between 60° – 80° F out of direct sunlight. Do not allow material to freeze. Shelf Life for unopened containers is 6 months when stored properly.

SAFETY PRECAUTIONS: Health Considerations

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



- Consult the PolyGreen Solutions Safety Data Sheets (SDS)

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 PolyGreen Solutions. 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 PolyGreen Solutions 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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