



# GREENSEAL™ 503X

## TECHNICAL DATA SHEET

### DESCRIPTION:

GreenSeal 503X is a fast set, open cell, 100% water-blown spray polyurethane foam (SPF) insulation system. Designed to reduce energy consumption in residential and commercial structures up to 50% by insulating and air sealing the thermal envelope in a single step. GS-503X is applied as a liquid and then expands over 100x in seconds to fill building cavities of any shape or size. It exhibits superior thermal insulation, air-barrier and sound attenuation properties compared to conventional insulation materials. Meets/ exceeds minimum building codes for fire safety.

Physical Property	Test	Result
Core Density (nominal)	ASTM D-1622	0.5 lb/ft <sup>3</sup>
R-Value	ASTM C-518	3.8 @ 1"
Tensile Strength (psi)	ASTM D-1623	5.2
Compressive Strength	ASTM D-1621	0.6
Water Vapor Permeability (perm)@ 5.5"	ASTM E-96	4.2
Air Leakage (L/s/m <sup>2</sup> @75Pa @ 1")	ASTM E-283	0.003
Dimensional Stability (%)	ASTM D-2126	<1 Δ
Fire Rating	E-84	Class 1
Flame Spread Index	E-84	≤ 25
Smoke Development	E-84	≤ 450
Open Cell Content (%)	ASTM D-2856	98
Viscosity (cps) B Component	ASTM D-2196	250-500
A Component		200-250

Acoustical Rating (STC)

55 ± 4

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### Typical Uses

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

### Features and Benefits

- ICC-ES Pending
- AC-377 Appendix X compliant.
- NFPA 286 compliant with Flame Control 60-60A or Fireshell F10E Coating.
- Class 1 fire rated.
- Low Odor during application. Produces no toxic vapors after installation.
- All Water-blown, non-ozone depleting substances; VOCs, HFCs and is PBDE-free.
- 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°-150° F.
- Equipment Pressure; 900-1500 psi.
- Substrate; 30° – 105° F
- Ambient; 45° - 105° F (Winter 30°-45° F)
- Substrate Moisture; < 19%
- Cream Time @ 77°F; 3-5 seconds
- Rise Time @ 77°F; 8-14 seconds

**PREPARATION:** GreenSeal 503X resin (B) requires mixing 30 minutes prior to application, using an electric or pneumatic drum mixer in the center bung of the drum. Ensure the mixer is securely attached. Folding blade arrangement ; 6" blade top, 6" blade middle, 8" blade bottom is recommended. Continually mix B-side (resin) while applying material.

**APPLICATION INSTRUCTIONS:** GreenSeal 503X 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 503X 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 503X 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 503X should not be used for exterior applications, as UV light will rapidly degrade the foam. It should not be used where foam will stay submerged in water or below grade where backfill material may crush or damage the product. Do not use near high or open flame.

GreenSeal 503X 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. Consult your local building code official for approvals and recommendations.

**SUBSTRATES:** GreenSeal 503X 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 950 pounds . A set of GreenSeal 503X consists of one (1) 55 gallon drum of 'A' component and one (1) 55 gallon drum of 'B' component.

**STORAGE:** GreenSeal 503X 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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