



## GREENSEAL™ 43

### TECHNICAL DATA SHEET

#### DESCRIPTION:

GreenSeal 43 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-43 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 | 0.4 lb/ft <sup>3</sup> |
| R-Value                                     | ASTM C-518  | 3.8 @ 1"               |
| Tensile Strength (psi)                      | ASTM D-1623 | 5.0                    |
| 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 | 350-400                |
| 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

- Remains soft and flexible allowing for substrate and building movement while maintaining proper insulation and air sealing of the building envelope.
- 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 43 resin (B) does not require agitation.

**APPLICATION INSTRUCTIONS:** GreenSeal 43 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 43 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 43 should be installed at a maximum thickness of 2 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 43 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. Do not apply when Relative Humidity is higher than 80%.

GreenSeal 43 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 43 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 43 consists of one (1) 55 gallon drum of 'A' component and one (1) 55 gallon drum of 'B' component.

**STORAGE:** GreenSeal 43 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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