

## EasySeal ULD

### DIVISION 7: Thermal & Moisture Protection

#### Product Description:

EasySeal ULD spray foam insulation is a spray-applied, two component, open cell polyurethane foam insulation system. The product is formed by the reaction of a proprietary resin blend and polymeric methylene diphenyl diisocyanate. The resin blend is comprised of polyols, additives, fire retardants and blowing agents.

The spray applied nature of EasySeal ULD spray foam allows the material to flow into voids and seal cracks, expanding to form a seamless thermal envelope. EasySeal ULD is an air barrier, with high yield and high R-value (resistance to heat flow).

#### Key Attributes:

Property†	Test Method	EasySeal ULD
Apparent Density	ASTM D-1622	0.4 - 0.5 lbs/ft <sup>3</sup> (nominal)
R-value (aged)	ASTM C-518 (75°F mean)	3.6 R/in*
Compressive Strength	ASTM D-1621	< 5 lbs/in <sup>2</sup>
Closed Cell Content	ASTM D-6226	< 10% (vol.)
Fungi Resistance	ASTM C-1338	No Growth
Air Permeance	ASTM E-2178	< 0.02 L/s-m <sup>2</sup>
Water Vapor Permeance	ASTM E-96	20 perm-in
Dimensional Stability, -40°F	ASTM D-2126	<5%
Dimensional Stability, +200°F	ASTM D-2126	<5%
Dimensional Stability, +158°F & 100%RH	ASTM D-2126	<5%
Ignition Barrier	ICC AC377 Appendix X	Pass DC315 4 mils wft
Thermal Barrier	NFPA 286	Pass DC315 14 mils wft

\* Calculated from 3.5-inch thick sample

† These values are typical. However values will vary and should not be considered part of the product specifications. It is imperative that the trained applicator read and understand this technical datasheet and SDS to process the material correctly and understand environmental and equipment limitations.

#### Product Uses:

Walls                                  Attics                                  Ceilings  
Crawlspaces\*                          Ducts  
Interior Applications

\* Ventilated in low humidity environments

#### ASTM E-84:

EasySeal ULD spray foam is an ASTM E-84 (NFPA 255, UL723) class 1 (class A) spray foam insulation.

Flame Spread Index <25  
Smoke Developed Index <450  
Thickness 4 inches

*These numerical flame spread values are not a true reflection on how this or any material will perform in actual fire conditions.*





# TECHNICAL DATASHEET

## Thermal Barriers:

EasySeal ULD spray foam must be separated from the interior of the building (occupied space) by an approved 15 minute thermal barrier such as ½” inch gypsum board or other equivalent material. Exceptions for the thermal barrier are allowed; for example, foam plastic in attics and crawlspaces with limited access. Consult local building codes for requirements and restrictions.

## Chemical Attributes:

Component	Viscosity (25°C)	Density
Isocyanate	200 cps	10.3 lbs/gal
Resin	300 cps	9.2 lbs/gal

## Storage & Shelf Life:

EasySeal ULD spray foam components have an optimal shelf life of 6 months when stored in unopened containers at temperature between 50 – 70°F. Excessively high temperatures may reduce optimal shelf life. Store material at 60 – 70°F for 48 hours prior to application.

## Environmental Considerations:

For best results, EasySeal ULD should be applied when ambient conditions are between 40°F and 120°F with relative humidity less than 80%. When ambient conditions are below 40°F it is necessary to warm and dry the building or substrates.

## Substrate Preparation:

All surfaces must be clean and dry, free of dirt, oil, solvents, grease and loose particles for optimal adhesion. EasySeal ULD spray foam bonds tenaciously to most clean substrates. Moisture content of wood products should.

be < 18% and concrete must age at least 28 days before application of EasySeal ULD spray foam can occur. Consult SES Foam for specific recommendations on primers or substrates.

## Service Temperature:

EasySeal ULD spray foam insulation is designed to be used in ambient temperatures from -40°F and 180°F, 220°F intermittent. It is strongly recommended that test sprays be conducted before installation for use in extreme temperatures.

## Processing Parameters:

EasySeal ULD spray foam is designed to be applied by trained contractors using high pressure, plural component spray proportioners. The spray proportioner must be able to maintain the designed temperature and pressure for EasySeal ULD spray foam products:

A/B/Hose Temperature	120 - 140°F
A/B Dynamic Pressure	1000 - 1500 lbs/in <sup>2</sup>

Optimal spray settings will vary with proportioner, hose dimensions, gun configuration and ambient conditions. It is critical for sprayers to understand the limitations associated with their equipment.

## Safety and Handling Information:

It is critical to read and become familiar with the Material Safety Datasheets prior to working with EasySeal ULD spray foam liquid components. During application respiratory protection is required for the applicator and bystanders or helpers. For more information consult Material Safety datasheets, [www.sesfoam.com](http://www.sesfoam.com), or [www.spraypolyurethane.org](http://www.spraypolyurethane.org)

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