

EcoPolySealTM

Technical Data Sheet

Rigid Spray applied polyurethane foam

Company:

North American Spray Foam Polymers
7901 4th Street North, Suite 4021
St. Petersburg, FL 33702
Phone 800-713-1646

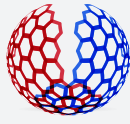
Product:

EPS 2000 Closed Cell

EPS2000 is a two component, closed cell, spray applied, rigid polyurethane foam system. Our product was formulated with a combination of recycled material, rapidly renewable soy oils, and a blowing agent that has zero depleting potential to help our world be a better place for the next generation. EPS2000 complies with the intent of the International Code Council's commercial and residential building codes. EPS2000 is normally used as thermal insulation, air barrier, vapor retarder with a water resistive barrier in above grade, below grade exterior and interior applications.

Physical properties

ASTM D 1622	Core Density	Summer - 2.23 lb/ft ³ Winter - 2.17 lb/ft ³	Summer - 35.7 Winter - 34.8 kg/m
ASTM C 518	Aged thermal resistance (R-value at 1 inch)	Summer - 6.7 ft ² h°F/BTU Winter - 6.9 ft ² h°F/BTU	Summer - 1.18 Km Winter - 1.22 Km
ASTM E 283	Air Leakage @ 75 Pa @ 1"	< 0.02 L/sm ²	
ASTM E 2178	Air Permeance @ 75 Pa @ 1"	< 0.02 L/sm ²	
ASTM E 2357	System Air Leakage Rating Opaque Wall: Air Exfiltration 75 Pa (1.57 pcf) Penetrated Wall: Air Exfiltration 75 Pa (1.75 pcf)	Summer - 0.0039 Winter - 0.0001 Summer - 0.0001 Winter - 0.0001	
ASTM E 96	Water Vapor Permeance (Summer @ 1.625", Winter @ 1.1") Qualifies as a Class II vapor barrier per IBC Section 202	< 1 perm	< 57.2 ng/Pa•s•m
ASTM D 2842	Water Absorption (volume)	Summer - 0.87% Winter - 0.81%	
ASTM D 1621	Compressive Strength at 10% Deformation	Summer - 18.0 psi Winter - 23.1 psi	Summer - 124 Winter - 159 kPa
ASTM D 1623	Tensile Strength	Summer - 37.9 psi Winter - 53.7 psi	Summer - 261 kPa Winter - 370 kPa
ASTM D 2126	Dimensional Stability @ 158°F (70°C) 97% R.H. (168 hours)	Summer - 5.45% (% volume change) Winter - 4.14% (% volume change)	
VOC Emissions	UL Environment (Greenguard Gold)	Meets Criteria	
ASTM C 1338	Fungi Resistance	No fungal growth	
ASTM D 6226	Closed Cell Content	Summer - 93.1% Winter - 93.8%	



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Fire test results

ASTM E 84	Surface Burning Characteristics, 4" thick Summer - Flame Spread Index Summer - Smoke Developed Winter - Flame Spread Index Winter - Smoke Developed	Class I 0 - 5 350 - 400 5 250 - 300
AC 377 Appendix X	Ignition Barrier - Compliant with 2009, 2012 & 2015 IBC and IRC, and ICC-ES AC-377 Appendix X, for use in attics and crawl spaces without a prescriptive ignition barrier or intumescent coating.	Pass
NFPA 286	Thermal Barrier - Compliant with the 2009, 2012 & 2015 IBC and IRC, as an interior finish without a 15 minute thermal barrier when coated with DC-315 at 18 mils wet film thickness, 12 mils dry film thickness, or Blazelok TM TBX at 18 mils wet film thickness, 12 mils dry film thickness.	Pass
ASTM D 1929	Ignition Properties (spontaneous ignition temperature)	Summer - 1010°F (543°C) Winter - 932°F (500°C)

Reactivity information

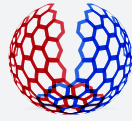
Cream Time	Gel Time	Tack Free Time	End of Rise
0 - 1 seconds	2 seconds	3 - 4 seconds	3 - 4 seconds

Renewable and recycled information

Finished Foam Renewable and Recycled Content	Summer - 22.7% Winter - 21.0%
Polyol Renewable Content	Summer - 8% Winter - 8%
Polyol Recycled Content	Summer - 37.4% Winter - 34%

Recommended processing information

Initial Primary Heater Setpoint Temperature	Summer 100 - 105°F Winter 95 - 100°F	Summer 38 - 41°C Winter 35 - 38°C
Initial Hose Heat Setpoint Temperature	Summer 100 - 105°F Winter 95 - 100°F	Summer 38 - 41°C Winter 35 - 38°C
Initial Processing Setpoint Pressure	1200 - 1400 psi	8274 - 9653 kPa
Substrate & Ambient Temperature	Summer > 50°F Winter > 10°F	Summer > 10°C Winter > -12°C
Moisture Content of Substrate	≤ 19%	≤ 19%
Moisture Content of Concrete	Concrete must be cured, dry and free of dust and form release agents.	



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Set Properties

	EPS A-IS0	EPS2000
Color	Brown	Blue
Viscosity @ 77°F (25°C)	180 - 220 cps	Summer - 250 - 350 cps Winter - 200 - 300 cps
Specific Gravity	1.24	Summer - 1.17 - 1.21 Winter - 1.20 - 1.22
Shelf Life of unopened drum properly stored	12 months	6 months
Storage Temperature	50 - 100°F (10 - 38°C)	59 - 77°F (15 - 25°C)
Mixing Ratio (volume)	1:1	1:1

General instructions:

The equipment must be delivering the proper ratio of 1:1 by volume of isocyanate (A-side) and the polyol blend (B-side) at adequate temperatures and spray pressures. Substrate must be dry and clean at the minimum or maximum temperatures outlined. Perfect conditions are considered to be 75-80 degrees and moisture free. Avoid all fire hazards. Each pass should be no more than 2 inches to avoid spontaneous combustion resulting from excessive heat generation. The foam temperature needs to drop to below 100 degrees before the next pass or reapplication of the product.

The EPS2000 closed cell spray foam provides a thermal & vapor barrier with proper installation. Contact your local county for building codes. The guidelines contained in the Technical Data Sheet are intended for experience spray foam installers that are authorized through EcoPolySeal. Do not apply spray foam in environments with an open flame or spark. Do not apply spray foam in environments without appropriate ventilation. Do not apply passes too thick in a single application, this can cause spontaneous combustion in the following hours. Follow the recommended processing conditions detailed in the SDS, TDS and Product Application Guide.

Disclaimer:

The information herein is to assist clients in determining whether our products are suitable for their application for the job being quoted. We recommend a panel test prior to use to ensure the job site conditions and equipment processing configuration is mixing properly to manufacture the spray foam. Nothing herein shall constitute a warranty, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or pending patent inferred. The foam product is combustible and must be protected in accordance with applicable codes. Protect from direct flame and spark contact. The exclusive remedy for all proven claims is replacement of material. Register all jobs and use common sense with an attitude of safety first.

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