



Natural-Therm™ 0.50 PCF

Spray Polyurethane Foam Insulation System

PRODUCT OVERVIEW

Natural-Therm™ 0.50 PCF Spray Foam Wall Insulation is the B-component of a two-component polyurethane foam insulation system processed at a 1:1 by volume. It has a 0.50 PCF spray in place density. Natural-Therm™ is a water blown hybrid foam insulation system. This product provides superior energy efficiency and air infiltration control. The product can be used in open wall cavities, crawlspaces, perimeter rim joists, cathedral ceilings and garage ceilings.

PRODUCT USE

Natural-Therm™ 0.50 PCF is designed as a high performance building envelope insulation system for both residential and commercial construction.

PRODUCT APPLICATION

Natural-Therm™ 0.50 PCF should be applied in 1" to 4" lifts. This procedure is in accordance with the manufacturer's recommendations detailed in the application manual.

Natural-Therm™ 0.50 pcf should only be applied to approved substrates recommended by the manufacturer. The product must be covered with an approved 15 minute thermal barrier equivalent to 1/2 " Gypsum Wall Board or an approved ignition barrier.

The data presented here should only be used as a guide since the actual foam properties are influenced by the efficiency of the spray gun, component temperatures, foam thickness, and ambient conditions. Natural-Therm™ Series should be sprayed in uniform passes of 1" to 4" thickness. While the following technical information is based on the results of actual tests conducted by Natural Polymers, it should only be used as a guideline for typical chemical and physical properties. The user must test and qualify the product. Final determination of suitability is the responsibility of the user.

Natural-Therm™ 0.50 PCF has been evaluated by Intertek 3131236SAT-002 in accordance with the ASTM tests listed in this sheet.



PHYSICAL PROPERTIES

DENSITY:	ASTM D-1622 @ 2" 0.50 PCF
OPEN CELL CONTENT:	ASTM D-6226 >92%
	R-VALUE: 3.81 per inch
THERMAL RESISTANCE:	ASTM C-518
DIMENSIONAL STABILITY:	ASTM D-2126 (% volume change)
	-20°F -0.1
	158°F 100% R.T. -0.40
	Humidity
	158°F Dry -0.20
FIRE PERFORMANCE:	ASTM E-84
	Flame Spread < 15
	Smoke Development < 300
AIR LEAKAGE:	ASTM E-283-91 0.00022 ft3/s.ft2
SOUND TRANSMISSION CLASS:	ASTM E-90 39
	ASTM C-423 75

FIRST AID:

Inhalation: Remove to fresh air and seek medical attention. See MSDS for more details.

Eye and Skin Contact: Wearing eye protection is required. Polyurethane foam vapors can enter the body through the lungs, eyes and skin. It is important to protect the lungs, eyes and skin from overspray and organic vapors emitted by the foam while it is being applied.

Ingestion: If liquid is swallowed seek medical attention immediately.

STORAGE:

The material is recommended to be stored between 50° F and 80° F. Store in a dry, well ventilated area protected from freezing rain and direct sunlight. This material has a six-month shelf life under normal storage temperatures.

PERSONAL PROTECTION:

All users must wear approved chemical protection equipment. OSHA approved respirators are required. Please see the training manual for more information.

THERMAL PERFORMANCE

THICKNESS (")	R-VALUE (h-ft2-°F)/BTU	THICKNESS (")	R-VALUE (h-ft2-°F)/BTU
1.0	3.81	6.0	22.85
1.5	5.71	6.5	24.75
2.0	7.62	7.0	26.66
2.5	9.50	7.5	28.57
3.0	11.42	8.0	30.50
3.5	13.33	8.5	32.40
4.0	15.25	9.0	34.28
4.5	17.14	9.5	36.20
5.0	19.00	10.0	38.11
5.5	21.00		

Tested in accordance with ASTM C518 at 75°F (24°C) mean temperature.

All polyurethane foam burns in varying degrees which in turn liberates toxic gasses and should be evaluated in its final form for compliance to existing standards in your industry. The information presented herein is based on our own research and that of others and is believed to be correct, however, no warranty is expressed or implied. No statement herein extends any license, either expressed or implied, in connection with any patents issued or pending which may be the property of Natural Polymers or others. The manufacturer shall not be liable (regardless of fault) to the vendor's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishings of such information.