

## DESCRIPTION

ECOTITE™ 2.0 MAX closed-cell spray foam insulation is an ideal way to insulate a wide variety of items. It provides more insulation in less space.

Compared to other insulation methods, closed-cell spray foam insulation provides greater energy efficiency, higher R-values, as well as better moisture control. It also provides high compressive strength and helps give protection to the applied device.

## TYPICAL APPLICATIONS

- Gas / Oil Industry.
- Industrial Applications.
- Mining.
- Agricultural Uses.
- Fluid Heat Transfer Applications.

## KEY FEATURES

- Superior air and water vapor barrier at 2".
- Rigidity increases structural integrity.
- Helps increase performance, while reducing heating costs.
- Is dimensionally stable and will not shrink or expand.
- Delivers a superior R value of 6.9 per inch.
- Made with >20% recycled content.
- Ideal for all spray foam applications.
- May be used in interior, exterior, or subterranean applications.
- Specifically created for continuous in-service temperatures of up to 176°F (80°C) and down to -76°F (-60°C) on tanks, pipelines, and other storage devices.



### THERMAL RESISTANCE TEST METHOD ASTM C-518

ECOTITE™ 2.0 MAX is a closed cell medium-density SPF with an exceptional R-Value of 6.9 per inch.

THICKNESS - MM (INCHES)	R-VALUE (ft <sup>2</sup> -hr-F/BTU)	RSI (2.0 m <sup>2</sup> •K/W)
25.4 mm (1.0")	6.9	1.21
48.2 mm (1.9")	13	2.28
68.5 mm (2.7")	19	3.35
88.9 mm (3.5")	24	4.22
139.7 mm (5.5")	37.8	6.65
200.0 mm (7.9")	54.3	9.56

### TYPICAL PHYSICAL PROPERTIES

#### (For components)

Mixing ratio by volume  
Shelf Life - Unopened Containers

#### COMPONENT A

1  
12 months

#### COMPONENT B

1  
6 months

#### (For cured material)

Core Density (lb/ft<sup>3</sup> / kg/m<sup>3</sup>)  
Tensile Strength (psi / kpa)  
Compressive Strength (psi / kpa)  
Closed-Cell Content (%)  
Fungi Resistance  
Moisture Vapor Transmission (permeance)

#### TEST METHOD

ASTM D-1622  
ASTM D-1623  
ASTM D-1621  
ASTM D-2856  
ASTM G-21  
ASTM E-96  
  
ASTM E-283  
ASTM E-90-85 E413  
ASTM C-423  
ASTM D-2126

#### RESULTS

2.0 ± 0.1 / 32 ± 1.5  
55 - 65 / 379 - 448  
15 - 20 / 103 - 137  
>92  
Zero Rating  
.80 Perm @ 1"  
.23 Perm @ 3.5"  
.14 Perm @ 5.5"  
.10 Perm @ 7.9"  
0.0001  
43  
0.2  
6% (7 days at 158°F, 95% RH)

### PROCESS SPECIFICATIONS

The system settings required to achieve quality spray foam application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum foam quality. DO NOT MIX OR RECIRCULATE.

Equipment pre-heater temperature		
Component A	120 – 130°F	49 – 54°C
Component B	120 – 130°F	49 – 54°C
Hose temperature	120 – 130°F	49 – 54°C
Spray pressure	1100 – 1200 PSI	76 – 83 Bar

### APPLICATION INSTRUCTIONS

Designed for an application rate of 13 mm (½ inch) minimum to 50 mm (2 inches) maximum. Once installed and material has cooled, it is possible to add additional applications in order to increase the overall installed thickness of SPF. It is critical that materials are stored at recommended temperatures before and during application to allow for proper proportioning of materials.

## STORAGE

ECOTITE™ 2.0 MAX components should be stored in sealed containers at 18 – 29° C (65 – 85° F) in a dry area. Avoid exposure to freezing temperatures. Store on wooden pallets to avoid direct contact with the ground. Material in containers should be maintained at 18 – 29° C (65 – 85° F) while in use. Material temperature should be confirmed with a thermometer or an infrared gun.

## PACKAGING

A set of ECOTITE™ 2.0 MAX consists of one (1) 208 Liter (55 gallon) drum of 'A' component and one (1) 208 Liter (55 gallon) drum of 'B' component. Net weight per set is 453.5 kg (1000 pounds).

## PRECAUTIONS

Protect from exposure to moisture. Water will cause the "A" component (ISO) to generate carbon dioxide with resulting high pressure in closed containers.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your Pinnacle representative or visit our website for current technical data and instructions.

## TECHNICAL SUPPORT

We have a dedicated technical support team offering knowledgeable support for everything from preventative maintenance, equipment calibration and servicing through to coating and foam application advice. If you have any questions regarding the use of this product please call us toll free at 1-800-901-0088 or email us [info@pinnaclewest.net](mailto:info@pinnaclewest.net).

## ON-SITE TRAINING

Our on-site training programs provide the necessary equipment and application training, including the health and safety aspects, needed to apply a wide variety of products. The goal of our programs are to give the skills required to be a professional and productive installer.

## SAFETY PRECAUTIONS

Health Considerations - Consult the Material Safety Data Sheets. This chemical system requires the use of proper safety equipment and procedures. Please follow the product MSDS for detailed information and handling guidelines. In addition to reading and understanding the MSDS, all contractors and applicators must use appropriate respiratory, skin and eye Personal Protective Equipment (PPE) when handling and processing polyurethane chemical systems. Consistent use of personal proper protective equipment to prevent exposure during spraying and within the 24 hour-period after spraying is completed is critical to eliminating the health hazard. As with all SPF systems, improper application techniques such as: excessive thickness of SPF, spraying into or under rising SPF and off-ratio material, potential results of improperly installed SPF include: dangerously high reaction temperatures that may result in fire and offensive odors that may or may not dissipate. Improperly installed SPF must be removed and replaced with properly installed materials. Large masses of ECOTITE™ 2.0 should be removed to an outside safe area cut into smaller pieces and allowed to cool before discarding into any trash receptacle. AIR INTAKE UNITS SHOULD BE SHUT DOWN AND VENTS SEALED DURING POLYURETHANE SPRAY APPLICATIONS.

## WARRANTY

When installed properly in accordance with instructions, Pinnacle West Enterprises Inc. warrants that the properties of the product meet product specifications as outlined in this technical data sheet. Save and except any exclusions referenced in the warranty.

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 Pinnacle West Enterprises Inc. 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 distributed by Pinnacle West Enterprises Inc. 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.