ENERTITE® IB-418  
LOW-DENSITY, OPEN-CELL INSULATION

DESCRIPTION:
ENERTITE IB-418 is a two-component low-density open-cell spray polyurethane foam system designed for use in residential construction and common commercial insulation applications. ENERTITE IB-418 is compatible with most common construction materials but can only be processed with ELASTOSPRAY® 8000A Isocyanate. The benefits of ENERTITE IB-418 include:

- Ignition Barrier in Limited-Access Attics and Crawlspace
- Superior insulation
- Non-fibrous
- Sound control

TYPICAL PROPERTIES(1):

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>METHOD</th>
<th>ENERTITE IB-418</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity @ 70°F</td>
<td>ASTM D1638</td>
<td>1.135</td>
</tr>
<tr>
<td>Viscosity @ 77°F (cps)</td>
<td>Brookfield</td>
<td>350</td>
</tr>
<tr>
<td>Density, core (pcf @ 4” lifts)</td>
<td>ASTM D1622</td>
<td>0.6 – 1.0</td>
</tr>
<tr>
<td>Open Cell Content (%)</td>
<td>ASTM D6226</td>
<td>&gt;90</td>
</tr>
<tr>
<td>Thermal Resistance (aged)</td>
<td>ASTM C518</td>
<td>4.1 / in @ 1-in thick</td>
</tr>
<tr>
<td>R-value (Rt hr-F/Btu in)(2)</td>
<td></td>
<td>3.8 / in @ 4-in thick</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM D1623</td>
<td>3.3 psi</td>
</tr>
<tr>
<td>Surface Burning Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flame Spread Index(2)</td>
<td>ASTM E84</td>
<td>≤ 25</td>
</tr>
<tr>
<td>Smoke Developed Index(2)</td>
<td>ASTM E84</td>
<td>≤ 450</td>
</tr>
</tbody>
</table>

(1) These physical property values are typical for this material as applied at our development facility under controlled conditions. SPF performance and actual physical properties will vary with differences in application (i.e. ambient conditions, process equipment and settings, material throughput, etc.). As a result, these published properties should be used as guidelines solely for the purpose of evaluation. Physical property specifications should be determined from actual production material.

The above data was collected from samples prepared using equipment configurations pertinent to lab conditions. Parameters can be obtained upon request by calling 800-706-1712.

(2) The data chart shows the R-value of this insulation. “R” means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy. There are other factors to consider. The amount of insulation will depend upon the climate, the type and size of your house, and the fuel use patterns and family size. If you buy too much insulation it will cost you more than what you will save on fuel. To achieve proper R-values, it is essential that this insulation be installed properly.

ADDITIONAL TESTING:
- ASTM E84 (Class I) (3) (4)
- AIR LEAKAGE / AIR PERMEANCE

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>METHOD</th>
<th>THICKNESS</th>
<th>ENERTITE IB-418</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Leakage</td>
<td>ASTM E283</td>
<td>3.5 inches</td>
<td>&lt;0.02 L/s-m² @ 75 Pa</td>
</tr>
<tr>
<td>Air Permeance</td>
<td>ASTM E2178</td>
<td>3.5 inches</td>
<td>&lt;0.02 L/s-m² @ 75 Pa</td>
</tr>
</tbody>
</table>

- ATTIC and CRAWL SPACE assemblies (ICC-ES AC377, Appendix X)
  - No Covering Required
    - 12 inches (max) thickness in Wall
    - 16 inches (max) thickness in Ceilings
  - As a covering over ENERTITE NM
    - 2 inches (min) covering 10 inches (max) ENERTITE NM in Walls
    - 2 inches (min) covering 14 inches (max) ENERTITE NM in Ceilings
  - No coating required when installed in accordance with the limitations described in Section X2.2 of ICC-ES Acceptance Criteria AC377 Approved November 2012 (Editorially corrected April 2013).

ADDITIONAL INFORMATION:
Odor level of spray polyurethane foam is dependent on proper application using the recommended processing parameters and proper ventilation.

Caution-Failure to follow the application precautions, material safety data sheet information as well as accepted industry practices (www.spraypolyurethane.org) may result in unwanted foam physical properties and applications that may not provide the desired results. This also includes unwanted health risks such as possible respiratory issues, sensitization or eye irritations such as blue haze for applicators and workers located in the area being sprayed. A full understanding of the foam processing and all safety risks must be completed before spraying. Call our BASF spray foam team if you have questions 800-706-0712.

Please contact your local Sales or Technical Representative for specific questions regarding ENERTITE IB-418 properties, approvals, or certifications.

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**GENERAL INFORMATION:**

ENERTITE IB-418 is a spray polyurethane foam (SPF) system intended for installation by qualified contractors trained in the processing and application of SPF systems, as well as the plural-component polyurethane dispensing equipment required to do so. Contractors and applicators must comply with all applicable and appropriate storage, handling, processing and safety guidelines. BASF technical service personnel should be consulted in all cases where application conditions are questionable.

ENERTITE IB 418 has an estimated theoretical yield range of 14,000-15,000 board feet per set. Actual yield performance can be in excess of or below the referenced estimated theoretical range based on factors affecting density including, however, not limited to: multiple lifts, substrate texture, substrate temperature, overspray loss, windy conditions, altitude, container residue, equipment characteristics & temperatures, applicator technique, etc. For help estimating yield for this and other spray foams, please consult Spray Polyurethane Foam Alliance’s SPF-121 SPF Estimating Reference Guide.

**CAUTIONS AND RECOMMENDATIONS:**

ENERTITE IB-418 is designed for an application rate of ½ inch minimum to 6 inches maximum per pass. Once installed and material has cooled, it is possible to add additional applications in order to increase the overall thickness of SPF. Thicker installations are allowed based on large scale testing. Please see ESR-3102 for additional information. This application procedure is in compliance with the Spray Polyurethane Foam Alliance (SPFA).

ENERTITE IB-418 is NOT designed for use as an EXTERIOR roofing system. BASF offers a separate line of products for exterior roofing applications. For more information, please contact your sales representative.

Cold-storage structures such as coolers and freezers demand special design considerations with regard to thermal insulation and moisture-vapor drive. ENERTITE IB-418 should NOT be installed in these types of constructions unless the structure was designed by a design professional for specific use as cold storage.

ENERTITE IB 418 is designed for installation in most standard construction configurations using common materials such as wood and wood products, metal and concrete. ENERTITE IB 418 has performed successfully when sprayed onto wood substrates down to 40°F using special cold weather application techniques. For heat sink-materials such as metal or concrete, ENERTITE IB 418 can be sprayed onto substrates down to 50°F, using a flash pass method. BASF recommends the use of mock ups or sample spray before starting the full-scale project. This will provide an opportunity to see how all materials are installed and evaluate their properties prior to proceeding.

**LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY:**

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. Customer assumes full responsibility for quality control, testing and determination of suitability of products for its intended application or use. We warrant that our products will meet our written liquid component specifications. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability or fitness for a particular purpose. Our total liability and customers’ exclusive remedy for all proven claims is replacement of nonconforming product and in no event shall we be liable for any other damages.