Testing & Certifications

All tests on InfraStop® Insulation products are performed at either nationally approved independent laboratories or at leading universities. Tests are performed to current American Society of Testing and Materials (ASTM) Standards when a standard exists.

Testing results on our Reflective Insulation (Reflective/Bubble/ Bubble/Reflective) product are listed below. For any additional product specifications for this product (or any other), please refer to our website at www.insulationstop.com, or feel free to call our InsulationStop Customer Service at (800) 871-0410.

- Nominal Thickness: 5/16" (.312)
- Weight: 0.771 oz./ft²
- Temperature Range: -60°F to 180°F
- Flame Spread: Less than 25*
- Smoke Development: Less than 50*
- Perm. Rating: 0.02**
- Puncture Resistance: 60 lb./in.***
- Vapor Transmission: 0.02
- Mold and Mildew Growth: No Growth
- Emittance: Less than 0.06
- Tensile Strength: 3.7 N/mm
- Pliability: No Cracking
- Hot Surface Performance: Passed (250°F)

* Intertek Testing ASTM Test Method E-84  **ASTM Test E-96  ***FSTM 101 B Method 2031

Product Standards

Resistance to fungi or bacteria: InfraStop® does not promote the growth of fungi or bacteria.

InfraStop® products have been evaluated by the following:

- ICC-ES Evaluation Report Number ESR-1362
- State of California
- State of California Licensed Insulation Manufacturer
- State of Minnesota: Filed with Minnesota Insulation Standards Program
- State of Wisconsin: Wisconsin Material Approval, Safety and Buildings Division Approval # 920088-1
- Intertek: Surface Burning Characteristics of Building Materials ASTM E84 (Taped Joint Detail) Test Report # 3166908SAT-012
- Intertek: Surface Burning Characteristics of Building Materials ASTM E84 (Unslit) Test Report # 3166908SAT-011
- R&D Services: Resistance to the Growth of Fungi ASTM C1338 Test Report # RD072713FR
- State of California
- Thermal Performance of Water Heater Jackets
- State of California Insulations Products Program
- State of Minnesota: Filed with Minnesota Insulation Standards Program
- State of Wisconsin: Wisconsin Material Approval, Safety and Buildings Division Approval # 920088-1
- Intertek: Surface Burning Characteristics of Building Materials ASTM E84 (Unslit) Test Report # 3166908SAT-011
- R&D Services: Physical Properties Sheet Width, Length, Pliability, Water Vapor Permeance and Aged Water Vapor Permanence
- R&D Services: Water Vapor Transmission Test ASTM-E96 (Dessicant Method)
- R&D Services: Resistance to the Growth of Fungi ASTM C1338 Test Report # RD072713FR
- State of California
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Total Design Calculations

Wall - Masonry

Product installed on 1" x 2" furring strips, 16" OC to block or concrete wall - Heat Flow Horizontal

<table>
<thead>
<tr>
<th>Construction Components:</th>
<th>R-values</th>
<th>At Framing:</th>
<th>At Cavity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation</td>
<td></td>
<td>0.95</td>
<td>0.60</td>
</tr>
<tr>
<td>Furring Strips</td>
<td></td>
<td>1.59</td>
<td>1.59</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2.54</td>
<td>2.19</td>
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</tbody>
</table>

Total Design "U" = 1.10/1.59 = 0.67

Wall - Exterior

Product installed on 2" x 6" studs, 16" OC - Inside the cavity compressing the mass insulation R-19 batt 3/4" - Heat Flow Horizontal

<table>
<thead>
<tr>
<th>Construction Components:</th>
<th>R-values</th>
<th>At Framing:</th>
<th>At Cavity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside Air Film</td>
<td>0.68</td>
<td>0.68</td>
<td>0.68</td>
</tr>
<tr>
<td>1/2&quot; Plaster Board</td>
<td>0.45</td>
<td>0.45</td>
<td>0.45</td>
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<tr>
<td>InfraStop® Insulation</td>
<td>0.88</td>
<td>0.88</td>
<td>0.88</td>
</tr>
<tr>
<td>R-19 Batt</td>
<td>15.70</td>
<td>15.70</td>
<td>15.70</td>
</tr>
<tr>
<td>1/2&quot; Plywood</td>
<td>0.62</td>
<td>0.62</td>
<td>0.62</td>
</tr>
<tr>
<td>Total</td>
<td>8.63</td>
<td>21.32</td>
<td>21.32</td>
</tr>
</tbody>
</table>

Total Design "U" = 14.8/8.63 + 86/21.32 = 0.566

* Includes the thermal resistance for InfraStop® Insulation and the airspace on one side of the product.

Note: The above assembly R-value of R-21 includes a 4.55 value for the reflective air film.