Reducing thermal bridging in building envelope connections is an ongoing mission as architects and engineers strive to design and construct energy efficient buildings. Thermal bridging occurs when conductive materials provide a conduit for energy to transfer across a thermal barrier creating an energy loss and potential for condensation.

In colder climates, internal heat will find the path of least resistance and will always want to transfer to the colder side, resulting in more energy needed to maintain room temperature. The opposite can be said for warmer climates. By incorporating Fabreeka-TIM® RF into steel and concrete connections, thermal energy transfer will be greatly reduced.

Fabreeka-TIM® RF is a high density, closed cell rigid polyurethane foam used as an effective thermal break for a variety of building envelope and cold storage applications. It is manufactured in several densities to support a range of load conditions.

Fabreeka-TIM® RF properties make it impermeable by any type of liquid, including water and most solvents, thus suited for moisture, severe weather conditions or harsh environments. Additionally, it is resistant to mechanical stress and has exceptional insulating qualities which makes it a valuable asset to reduce thermal bridging in building envelope connections and cold storage applications.

For optimal thermal break performance, the area around the fastener hardware should be taken into consideration. In addition to the Fabreeka-TIM® RF block, Fabreeka recommends Fabreeka-TIM® thermal break washers and bushings made from Fabreeka® material.

APPLICATIONS UTILIZING FABREEKA-TIM® RF THERMAL BREAK

- Structural column bases, especially vital in cold storage/freezer facilities
- Tank isolation block - reduces condensation by thermally isolating cooling equipment from its supporting structure
- Roof equipment and dunnage post support block – supports HVAC, fans, davits, anchors and other heavy equipment on building roofs while preventing heat transfer to the building interior
- Foundation connections, i.e. slab to foundation, foundation to wall
FABREEKA-TIM® RF SERIES
STRUCTURAL THERMAL BREAK

BENEFITS

- Made in the USA
- Used to achieve LEED certification
- Cost effective solution for low load structural connections
- Lightweight, strong and durable
- Three densities to meet different load conditions
- Thicknesses range from 1/2” to 10” in 1/2”, 1” or 2” increments
- Fast delivery
- Custom waterjet cut to your specification, including anchor bolt holes
- Time savings – products arrive at the site ready to use
- ISO certified company
- Lot control
- Creep resistant – resists deformation under load over time
- Closed cell material is impervious to water and other liquids
- Does not promote steel corrosion
- Functions in subgrade applications without rotting or dissolving
- Does not attract or sustain bugs or pests
- No release of chemical compounds into surrounding soil
- Compatible with concrete, grouts and adhesive

Specifications Fabreeka-TIM RF Series

<table>
<thead>
<tr>
<th></th>
<th>2150</th>
<th>1020</th>
<th>640</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate Compressive Stress PSI (Mpa)</td>
<td>2,150 (14.8)</td>
<td>1,020 (7.0)</td>
<td>640 (4.4)</td>
<td>ASTM D1621/EN 826</td>
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<tr>
<td>Compressive Modulus PSI (Mpa)</td>
<td>49,310 (340)</td>
<td>26,830 (185)</td>
<td>18,130 (125)</td>
<td>ASTM D1621/EN 827</td>
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<tr>
<td>Thermal Conductivity BTU-in/hr-ft²°F (mW/mK)</td>
<td>0.47 (68)</td>
<td>0.35 (50.5)</td>
<td>0.29 (42.5)</td>
<td>ASTM C518/ EN 12667</td>
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<tr>
<td>R value per inch (hr-ft²°F/ BTU)</td>
<td>1.90</td>
<td>2.60</td>
<td>3.10</td>
<td>ASTM C518/ EN 12667</td>
</tr>
<tr>
<td>Fire Reaction Class</td>
<td>B3</td>
<td>B3</td>
<td>B3</td>
<td>DIN 4102</td>
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<tr>
<td>Operating Temperature °F(°C)</td>
<td>-328/176 (-200/+80)</td>
<td>-328/176 (-200/+80)</td>
<td>-328/176 (-200/+80)</td>
<td>EN 12667</td>
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<tr>
<td>Density lb/ft³ (kg/m³)</td>
<td>28 (450)</td>
<td>20 (320)</td>
<td>15 (240)</td>
<td>ASTM D1622/ EN 1602 / EN ISO 845</td>
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<tr>
<td>Color</td>
<td>Brown</td>
<td>Beige</td>
<td>Mint</td>
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Note: Fabreeka-TIM® RF is only to be used in non-moment connections.