BISCO® Silicone Materials are the unrivaled long-lasting solution for product designers and engineers addressing mission-critical sealing, shock and vibration challenges under extreme conditions or safety requirements.

Pouch Cell Battery Pack

- **Venting Films**
  DeWAL® V-Series venting material for battery air pressure management.

- **Manual Service Disconnect Seal**
  BISCO® materials are used as a reliable environmental seal that withstands repeated opening and closing. The materials’ flame resistance (UL-V0) contributes to the safety requirements for high voltage batteries.

- **Pouch Cell Pads**
  PORON® polyurethanes pouch cell pads hold components in place, while withstanding dimensional changes to the pouch cells over the life of the battery. In parallel, they protect the cells against internal impact and vibration.

- **Cooling Plate Spring Pads**
  BISCO® silicones and PORON® polyurethanes are used as reliable elastomeric springs to maintain close contact between the cooling plate and the battery, ensuring performance.

- **Battery Housing Seal**
  BISCO® silicones provide ingress protection over the lifetime of the battery pack.
**KEY BENEFITS**

- **Superior Flame Ratings**
  Meets the highest UL, railway and aerospace standards.

- **Low Flame, Smoke, and Toxicity**
  During combustion.

- **Excellent Performance**
  At extreme high and low temperatures.

- **Superior Resistance to Compression Set**
  At ambient and elevated temperatures.

- **Natural Resistance to UV and Ozone**

- **Good Sealability with Low Compression**

- **Product Consistency**
  Quality manufacturing resulting in reliable and consistent material properties.

- **Broad Product Offering**
  Wide range of firmness, density, and thickness options available.

- **Quality Service**
  All products are supported by knowledgeable Rogers Sales and Applications Engineers, Technical Service and Customer Service Representatives.

**MATERIAL SAMPLES**

**BISCO® SILICONES**

**Cellular**

<table>
<thead>
<tr>
<th>BF-2000</th>
<th>BF-1000</th>
<th>HT-870</th>
<th>HT-800</th>
<th>HT-820</th>
<th>HT-840</th>
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Specialty with Substrate

<table>
<thead>
<tr>
<th>FPC</th>
<th>IF-200</th>
<th>RF-120</th>
<th>MF1*</th>
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**Solid**

1200 series

<table>
<thead>
<tr>
<th>HT-1240</th>
<th>HT-1250</th>
<th>HT-1260</th>
<th>HT-1270</th>
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6000 series

<table>
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<tr>
<th>HT-6220</th>
<th>HT-6210</th>
<th>HT-6135</th>
<th>HT-6240</th>
<th>HT-6360</th>
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Specialty

<table>
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<tr>
<th>HT-200</th>
<th>EC-2130</th>
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<tbody>
<tr>
<td>Property</td>
<td>SMP-800-C @ 1.5/4.0 min</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Density, kg/m³ (lb./ft³) typical values</td>
<td>Meets Meets Meets Meets Meets</td>
</tr>
<tr>
<td>Burn Length FMVSS 302, &lt;100mm/min</td>
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<tr>
<td>Flame Spread Index (Is) ASTM E162, Flaming Mode &lt;35</td>
<td>Meets Meets Meets Meets Meets Meets Meets Meets Meets Meets</td>
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<tr>
<td>Flame Resistance UL 94 (File E83967) V-0 ; HF-1</td>
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<tr>
<td>Areal Density, kg/m² (lb./ft²)</td>
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<tr>
<td>Tensile Elongation (%) ASTM D412</td>
<td>Meets Meets Meets Meets Meets Meets Meets Meets Meets Meets</td>
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<tr>
<td>Dry Arc Resistance (Seconds) ASTM D495</td>
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<tr>
<td>Dissipation Factor (1kHz) ASTM D150</td>
<td>Meets Meets Meets Meets Meets Meets Meets Meets Meets Meets</td>
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<tr>
<td>Dielectric constant (1kHz) ASTM D150</td>
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<tr>
<td>Thermal Conductivity (W/m °K) ASTM C518</td>
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<tr>
<td>Acoustic Volume Resistivity (Ohm-cm) ASTM D257</td>
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<tr>
<td>Dielectric Strength (Volts/mil) ASTM D149</td>
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<td>Recommended Constant Use -55- +200°C</td>
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<tr>
<td>Water Vapor Regain (%) ASTM E595 @ (4x10⁻⁶ Torr)</td>
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<tr>
<td>Total Mass Loss (%) ASTM E595 @ (4x10⁻⁶ Torr)</td>
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<tr>
<td>Thickness mm (in)</td>
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<tr>
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<td>Meets Meets Meets Meets Meets Meets Meets Meets Meets Meets</td>
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<td>Color Gray</td>
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<tr>
<td>Refer to datasheet for specification values.</td>
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<tr>
<td>Typical values shown unless otherwise noted.</td>
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</tr>
</tbody>
</table>

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**PRODUCT DATA**

**specification values**

**ASTM D1056 @ 25% Deflection 10 (1.5)**

**ASTM D1056 @ 100°C (212°F)**

**ASTM D746 @ -55°C (-67°F)**

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**TIPS FOR MATERIAL SELECTIONS**

**SPECIALTY SERVICES**

- **BISCO Cellular Silicones**
- **BISCO Specialty Silicones**
- **BISCO Solid Silicones**

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**LEGEND**

- Material can be slit with or without adhesive applied
- Material can be hot cut or cold cut
- Material can be scored, and scored material can be slit, scored and slit
- Material can be laser cut
- Material can be waterjet cut
- Material can be molded
- Material can be injection molded

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**FOR FLAME SPECIFICATIONS PLEASE REFER TO PRODUCT DATA SHEET**
Elastomeric Material Solutions Application Design Tool

The Elastomeric Material Solutions Application Design Tool assists in the identification of PORON® Polyurethane and BISCO® Silicone materials that best meet your design requirements and provides material options based upon your application requirements.

DESIGN TOOLS

Compression Force Deflection (CFD) Tool

Using stress-strain data, the CFD Curve Tool helps in the identification of the BISCO® or PORON® material(s) that meet your engineering requirements.

CFD Data Curve

- 1.5 to 4.75 mm Thickness
- 0.60 N/mm² Maximum Stress

Product Properties Guide

The Product Properties Guide filters BISCO® product information by various criteria, providing several material options based on your application requirements.

Vibration Isolation Tool

The Vibration Isolation Tool recommends the proper PORON® Polyurethane and BISCO® Silicone materials for your vibration mitigation applications. This tool uses your specifications to calculate the isolation efficiency of our materials, and provides the most effective material option.

STANDARDS

Industry Standards

Aerospace

- ABS 5006
- ABS 5026
- ABS 5708
- ABS 5789
- AIMS04-14-002A
- AMS 3195
- AMS 3196
- BMS 1-23
- BMS 1-60
- BMS 1-68
- CMS-RB-202
- CMS-RB-209
- DMS 1980 GR2 CL2
- DMS 1980 GR1 CL1
- DMS 1980 GR1 CL2
- DMS 1980 GR 3 CL1
- DMS 1980 GR 3 CL2

Automotive

- Chrysler MS-AY556
- GMW16392

Rogers Internal BISCO Standard

- Food/Medical FDA

Rail

- 49 CFR 238
- BS6853
- DIN5510
- EN 45545
- NFF16-1014
- NFPA 130

UL

- UL 50
- UL 50E
- UL 157
- UL 508
- UL 1598

Toxic Gas Emissions Rating

- SMP-800C (Pass/Fail @1.5/4.0 min)

Total Mass Loss

- ASTM E 595 (%)
APPLICATIONS

Gaskets
Heat Shields
Seals
Cushioning
Insulation
Floating Floors
and more …

For more information please visit us at:
www.rogerscorp.com/ems/bisco/index.aspx
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Rogers Corporation (NYSE:ROG) is a global leader in engineered materials to power, protect, and connect our world. With more than 180 years of materials science experience, Rogers delivers high-performance solutions that enable clean energy, internet connectivity, and safety and protection applications, as well as other technologies where reliability is critical. Rogers delivers Power Electronics Solutions for energy-efficient motor drives, vehicle electrification and alternative energy; Elastomeric Material Solutions for sealing, vibration management and impact protection in mobile devices, transportation interiors, industrial equipment and performance apparel; and Advanced Connectivity Solutions for wireless infrastructure, automotive safety and radar systems.

Headquartered in Arizona (USA), Rogers operates manufacturing facilities in the United States, China, Germany, Belgium, Hungary, and South Korea, with joint ventures and sales offices worldwide.

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