For product designers and engineers, Rogers Corporation is the elastomeric materials solutions partner of choice when quality, innovation, and collaborative support are critical to design optimization and product functionality.

Rogers’ materials are designed into products and applications in segments where high reliability and mission-critical performance are essential: automobiles, aerospace, mass transit, electronics, protective gear, footwear, medical products, and much more.

With unrivaled technical support, we foster successful customer relationships through a dedication to technical know-how, application expertise, and global support.

**PRODUCT OVERVIEW**

The BISCO portfolio offers a wide range of silicone buns, cellular foams, sponges, solids, and specialty materials in roll stock as well as a variety of firmness, thickness, and color options.

These specially engineered materials maintain high performance in extreme conditions and meet stringent safety requirements.

All materials come with the support of our experienced Technical Service Team.

1. **BUNS**
   Block form of silicone foam with key properties of low density, softness, and excellent acoustic absorption and vibration isolation properties.

2. **CELLULAR FOAMS**
   Open-cell silicone foams with key properties of durability, conformability, and excellent sealing for long-term protection.

3. **SPONGES**
   Closed-cell silicone sponges with key properties of good tensile strength and elongation, durability, and good sealing with relatively low compression.

4. **SOLIDS**
   Solid form of silicones available in industrial and performance grades with various key properties including tight thickness tolerances, high tear strength, and superior FST performance.

5. **SPECIALTY**
   Variety of specialty materials addressing unique challenges including heat management, sound blocking, electrical conductivity, and more.

For further information on Rogers’ portfolio of elastomeric material solutions, please contact the Rogers’ facility closest to you or visit rogerscorp.com.
### 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, thickness and color 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 Foams

<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>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty with Substrate</td>
<td>Bun</td>
<td></td>
<td></td>
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#### Solids

<table>
<thead>
<tr>
<th>1200 series</th>
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<tbody>
<tr>
<td>HT-1240</td>
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<thead>
<tr>
<th>6000 series</th>
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</thead>
<tbody>
<tr>
<td>HT-6220</td>
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</table>

<table>
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<tr>
<th>Specialty</th>
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<tbody>
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<td>HT-200</td>
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<td>BF Series</td>
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<td>HT-800 Series</td>
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<td>HT-1200 Series</td>
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<tr>
<td>HT-200 defined</td>
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<tr>
<td>HT-6000 Series</td>
</tr>
<tr>
<td>MS-1600 Series</td>
</tr>
<tr>
<td>MF1 Series</td>
</tr>
<tr>
<td>Specialty Series</td>
</tr>
</tbody>
</table>

**PRODUCT DATA**

For more BISCO® product information visit the BISCO® Product Properties Guide or www.rogerscorp.com.

- **Volume Resistivity (Ohm-cm) ASTM D257**: 7.0 x 10^13, 10^14
- **Tear Resistance (ppi) ASTM D624**: >2.0, 140, 150, 46
- **Water Vapor Regain (%) ASTM E595 @ (4x10^-6 Torr)**: 0.07, 0.04, 0.02, 0.03, 0.02, 0.01
- **Temperature Resistance**
  - **EMI Shielding (dB) & Electrical Conductivity (Ohm-cm) MIL G83528, ASTM D991**: Refer to Technical Data Sheets
- **Thermal Conductivity (W/m °K) ASTM C518**: 0.043, 0.037, 0.036, 0.048, 0.076, 0.09, 0.037, 0.07 (0.48), 0.08 (0.57), 0.19, 0.22, 0.31, 0.21, 0.13, 3.33, 0.08, 0.067, 0.06
- **Dielectric Constant (1 kHz) ASTM D150**: 1.4, 1.5, 1.5, 1.7, 1.8, 2.8, 3, 3, 2.8, 4.56, 1.46, 1.6, 1.42
- **Compression Force Deflection, kPa (psi) typical values**
- **Smoke Density (Ds) Flaming Mode**: <35
- **Flame Spread Index (1s) ASTM E162, Flaming Mode**: <35
- **Toxic Gas Emissions Rating SMP-800-C @ 1.5/4.0 min**: Meets Meets Meets Meets
- **Burn Length FMVSS 302, <100mm/min**: Meets Meets Meets Meets
- **Firmness**

**STANDARD COLOR**

- **White Black White, Gray, Black Red, Black Black, Gray**

**GUIDE**

For more BISCO® product information visit the BISCO® Product Properties Guide or www.rogerscorp.com.

- **Recommended Constant Use**
  - **ENVIRONMENT**
    - **Dry Arc Resistance (Seconds) ASTM D495**: Meets Meets Meets Meets
  - **Flammability**
  - **Outgassing**
  - **Low Temperature Brittleness**
  - **Firmness**
  - **Physical Properties Standard**
  - **PRODUCT DATA**
    - **Guide or www.rogerscorp.com.**
    - **For more BISCO® product information visit the BISCO® Product Properties Guide or www.rogerscorp.com.**
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.

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.

Example - CFD Data Curve

<table>
<thead>
<tr>
<th>Stress (N/mm²)</th>
<th>Strain (%)</th>
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<tbody>
<tr>
<td>0.00</td>
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<tr>
<td>0.05</td>
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<td>0.10</td>
<td>0.20</td>
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<td>0.15</td>
<td>0.15</td>
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<td>0.30</td>
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<td>0.40</td>
<td>0.00</td>
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</table>

Product Properties Guide

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

Example - Filters

- Groups: Flammability and Outgassing
- Product Category: Silicone Materials

Example - Configuration

- Application: EV/HEV Battery Pads & Cushions
- Thickness: 5.1 - 15.0 mm
- Compressibility: Medium

Poron® Polyurethanes
- Poron® 4701-40
- Poron® Dura-Shape® Foams

Bisco® Silicones
- Bisco® HT-800

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.

Example - Natural Frequency Curves

<table>
<thead>
<tr>
<th>Specific Load (psi)</th>
<th>Natural Frequency (Hz)</th>
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<tbody>
<tr>
<td>0.50</td>
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<tr>
<td>1.00</td>
<td>14</td>
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<tr>
<td>1.50</td>
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<td>4.50</td>
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<td>5.00</td>
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Standards

Industry

- Aerospace
- Automotive
- Food
- Rail
- UL

Product

- BF-2000
- BF-1000
- HT-800
- HT-820
- HT-840

Flammability and Outgassing

- UL94 V-0 (Pass/Fail)
- Burn Rate FMVSS302 (Pass/Fail)
- Flame Resistance @ 12 Sec FAR 25.853 (Pass/Fail)
- Flame Resistance @ 60 Sec FAR 25.853 (Pass/Fail)
- Smoke Density (DS) @ 1.5 min ASTM E 662
- Smoke Density (DS) @ 4.0 min ASTM E 662
- Toxic Gas Emissions Rating SMP-800C (Pass/Fail @1.5/4.0 min)

Mass Loss

- Total Mass Loss ASTM E 595 (%)
- Collected Volatile Condensable Materials ASTM E 595 (%)

Water Vapor Regain

- ASTM E595 (%)
# TIPS FOR MATERIAL SELECTIONS

## Material Slitting
- Ability to slit minimum width of 6.35 mm (0.250")
- Width of slit must be greater or equal to thickness
- Material can be slit with or without adhesive applied
- Maximum roll diameter is 355.6 mm (14")

<table>
<thead>
<tr>
<th>Applications</th>
<th>Aerospace</th>
<th>Communications</th>
<th>Rail</th>
<th>Automotive</th>
<th>Energy</th>
<th>Lighting</th>
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<tbody>
<tr>
<td>Flame, Smoke &amp; Toxicity</td>
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<td>✗</td>
<td>✗</td>
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<td>Softness</td>
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<td>EMI Shielding</td>
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</tbody>
</table>

### Legend
- ✗ BISCO Cellular Silicones
- ✗ BISCO Solid Silicones
- ✗ BISCO Specialty Silicones

For more information please visit us at:
www.rogerscorp.com/ems/bisco/index.aspx
World Class Performance

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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Rogers is committed to producing quality products in a safe environment manufactured with robust management systems certified to industry standards.