Co-Extruded Strips

Optimum Shielding Performance Plus Corrosion Prevention

Chomerics manufactures a dual performance extruded gasket in one simple design. By a seam vulcanization process, CHO-SEAL or CHO-SIL conductive elastomers are extruded in parallel with non-conductive elastomers to provide EMI shielding and corrosion protection from one gasket. The outer, non-conductive gasket acts as an extra environmental seal to keep moisture away from the conductive gasket/flange interface. This prevents corrosion of the mating flange in marine or airborne environments. Co-extruded gaskets are also cost-effective, as they permit the use of existing flange designs and provide for gasket attachment via a less expensive non-conductive elastomer. A similar two gasket shielding system requires a costly double groove flange design.

Technically Superior Design

Typical examples of effective co-extruded gaskets include commercial and military communications equipment, rack mounted cabinetry, and aircraft doors and panels. These applications vary in required shielding performance. Each Chomerics co-extruded gasket is engineered in our applications laboratory to match the geometric constraints, closure requirements and shielding performance demanded by the application.

Availability

Many of the gasket cross section shapes and sizes listed on the previous pages can also be co-extruded. Common co-extruded configurations are pictured at left. Also refer to the following pages for a selection of co-extruded shapes currently available. Contact Chomerics to assist you in material selection.

Fast, Easy Conductive Elastomer Gasket Installation with Chomerics Adhesive Tape Attachment

Chomerics has developed a unique adhesive attachment material for CHO-SEAL or CHO-SIL conductive EMI gaskets. This non-conductive pressure-sensitive adhesive (PSA) tape is available on most extruded profiles with a flat tape attachment area, such as D-, P-, K- and rectangular cross sections.

PSA Application: This method of gasket attachment is easy and effective with a clean surface. Simply clean the surface prior to mounting the gasket.* Remove the release film and position the gasket using light pressure. When the gasket is properly positioned, firmly press onto the flange.

Advantages

• Peel strength [90°] in excess of 4.5 pounds per inch of width (ppi)
• Available in continuous length or cut to length. (Note: Some cross sections cannot be packaged in continuous lengths.)
• Eliminates fasteners or other adhesives
• Can function as a “third hand” to facilitate difficult installations
• Available with fluorosilicones as a permanent attachment method
• Quick stick – readily adheres to clean surfaces
• Conformable adhesion to curved surfaces
• Resists humidity, moisture, natural elements
• Eliminates solvent emissions and long set-up times

Disadvantages

• Not available on round cross sections
• Not recommended for applications where solvent resistance is essential
• Not recommended for applications where resistance to excessive abuse due to moving parts or traffic is required

*Note: Refer to “Surface Preparation of Metallic Substrates” on page 14 for important information on proper cleaning and application. Also request Technical Bulletin 20.
### Table 20: Non-Conductive Extruded Elastomer Specifications*

<table>
<thead>
<tr>
<th>Test Procedure [Type of Test]</th>
<th>CHO-SEAL 2532</th>
<th>CHO-SEAL 2542</th>
<th>CHO-SEAL 2557</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conductive Match</strong></td>
<td>1215/1273</td>
<td>1287/1298/L6303</td>
<td>S6305/1285/1350/1215/1273/6372</td>
</tr>
<tr>
<td><strong>Elastomer Binder</strong></td>
<td>Silicone</td>
<td>Fluoro-Silicone</td>
<td>Silicone</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Black</td>
<td>Light Blue</td>
<td>Light Blue</td>
</tr>
<tr>
<td><strong>Hardness, Shore A</strong></td>
<td>60±5</td>
<td>70±5</td>
<td>65±10</td>
</tr>
<tr>
<td><strong>Specific Gravity (±0.25)</strong></td>
<td>1.5</td>
<td>1.68</td>
<td>1.55</td>
</tr>
<tr>
<td><strong>Tensile Strength, psi [MPa], min.</strong></td>
<td>400 (2.76)</td>
<td>500 (3.45)</td>
<td>200 (1.38)</td>
</tr>
<tr>
<td><strong>Elongation, % min.</strong></td>
<td>130</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td><strong>Tear Strength, lb/in/ [kN/m], min.</strong></td>
<td>35 (6.13)</td>
<td>30 (5.25)</td>
<td>35 (6.13)</td>
</tr>
</tbody>
</table>

*Materials used in the above chart are available to be used as Co-extrusions or bonded together with an EMI gasket.

Dimensions shown in inches; 1 in. = 25.4 mm

**Custom Co-Extruded Gaskets**

Extruded in parallel, dual conductive/non-conductive gaskets provide optimum EMI shielding and corrosion protection in a single, cost-effective design. For performance and cost advantages of this approach, refer to page 41. To discuss your requirements, contact our Applications Engineering Department.
### Custom Co-Extruded Strips

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagram Description</th>
<th>Dimensions (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-05-10168-XXXX</td>
<td><img src="image1" alt="Diagram 1" /></td>
<td>FULL R. 2X CONDUCTIVE, .356, .178, .175 NON-CONDUCTIVE</td>
</tr>
<tr>
<td>19-09-11771-XXXX</td>
<td><img src="image2" alt="Diagram 2" /></td>
<td>2X .335 NON-CONDUCTIVE, .124, .197 CONDUCTIVE</td>
</tr>
<tr>
<td>19-18-13715-XXXX</td>
<td><img src="image3" alt="Diagram 3" /></td>
<td>NON-CONDUCTIVE CONDUCTIVE, .344, .314</td>
</tr>
<tr>
<td>19-18-F775-XXXX</td>
<td><img src="image4" alt="Diagram 4" /></td>
<td>.025 R, 2X, .020 R, 2X, .140, .051 NON-CONDUCTIVE, .015, .121 CONDUCTIVE</td>
</tr>
<tr>
<td>19-09-LD55-XXXX</td>
<td><img src="image5" alt="Diagram 5" /></td>
<td>R. .024 R, .020 NON-CONDUCTIVE, .091 CONDUCTIVE, .090 NON-CONDUCTIVE, .050 CONDUCTIVE</td>
</tr>
<tr>
<td>19-09-LE59-XXXX</td>
<td><img src="image6" alt="Diagram 6" /></td>
<td>NON-CONDUCTIVE, .250, .950 CONDUCTIVE</td>
</tr>
<tr>
<td>19-09-LH10-XXXX</td>
<td><img src="image7" alt="Diagram 7" /></td>
<td>2X .090, .050 NON-CONDUCTIVE, .180, .058 CONDUCTIVE</td>
</tr>
<tr>
<td>19-18-LJ12-XXXX</td>
<td><img src="image8" alt="Diagram 8" /></td>
<td>2X .031, .130 NON-CONDUCTIVE, .120 CONDUCTIVE, .140 NON-CONDUCTIVE, .050 2X .020</td>
</tr>
<tr>
<td>19-18-15489-XXXX</td>
<td><img src="image9" alt="Diagram 9" /></td>
<td>NON-CONDUCTIVE, .030, .030 CONDUCTIVE</td>
</tr>
<tr>
<td>19-05-F011-XXXX</td>
<td><img src="image10" alt="Diagram 10" /></td>
<td>2X .099, .078 NON-CONDUCTIVE, .030, .156 CONDUCTIVE</td>
</tr>
<tr>
<td>19-09-LA89-XXXX</td>
<td><img src="image11" alt="Diagram 11" /></td>
<td>4X R. .125, .093 NON-CONDUCTIVE, .047 CONDUCTIVE, .227</td>
</tr>
<tr>
<td>19-09-X869-XXXX</td>
<td><img src="image12" alt="Diagram 12" /></td>
<td>NON-CONDUCTIVE, .040, .097 CONDUCTIVE</td>
</tr>
<tr>
<td>19-09-Z721-XXXX</td>
<td><img src="image13" alt="Diagram 13" /></td>
<td>4X R. .125, .093 NON-CONDUCTIVE, .047 CONDUCTIVE, .227</td>
</tr>
<tr>
<td>19-09-LH17-XXXX</td>
<td><img src="image14" alt="Diagram 14" /></td>
<td>4X .264, .344, .540 CONDUCTIVE, .375, .375 NON-CONDUCTIVE</td>
</tr>
<tr>
<td>19-18-15351-XXXX</td>
<td><img src="image15" alt="Diagram 15" /></td>
<td>2X .020, .060 TYP CONDUCTIVE, .030, .040 NON-CONDUCTIVE</td>
</tr>
<tr>
<td>19-18-M391-XXXX</td>
<td><img src="image16" alt="Diagram 16" /></td>
<td>R. FULL 2X, .140, .030, .120 NON-CONDUCTIVE, .375, .540 CONDUCTIVE</td>
</tr>
<tr>
<td>19-18-M635-XXXX</td>
<td><img src="image17" alt="Diagram 17" /></td>
<td>R. FULL 2X, .140, .030, .120 NON-CONDUCTIVE, .375, .540 CONDUCTIVE</td>
</tr>
<tr>
<td>19-18-16499-XXXX</td>
<td><img src="image18" alt="Diagram 18" /></td>
<td>NON-CONDUCTIVE, .060 TYP WALL THK.</td>
</tr>
</tbody>
</table>

Dimensions shown in inches; 1 in. = 25.4 mm
### 19-09-LF27-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - R .046 ±.005 2X
  - .130 ± .005
  - .260

### 19-24-12391-XXXX Combination Gasket
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - R .060 2X
  - .115
  - 10°

### 19-18-19078-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - Ø .623 ±.015
  - Ø .823 ±.015

### 19-18-19247-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - .10
  - .260
  - .060

### 19-18-19358-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - R .031 2X
  - .050

### 19-18-21184-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - .089 ± .007
  - Ø .550 ± .015
  - Ø .827 ± .015

### 19-18-22999-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - .045
  - .070
  - .165

### 19-18-23616-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - 2X R .024
  - .091 ± .005

### 19-18-24773-XXXX
- **Conductive**
- **Non-Conductive**
- **Dimensions:**
  - 235 ±.008
  - R .037 2X
  - .075