**INNOVATIVE SEALING SOLUTION**

From Flexitallic

**SIGMA™**

Flexitallic Sigma offers outstanding chemical resistance while the unique manufacturing process results in a biaxially fibrillated structure ensuring high seal integrity in the most demanding applications.

**SIGMA 500 (Blue)**

High compression glass microsphere filled PTFE sheet specially formulated for use on glass lined, plastic, or ceramic flanges.

**SIGMA 511 (Fawn)**

Standard compression silica filled PTFE sheet for use with concentrated acids and most general aggressive chemicals.

**SIGMA 533 (Off-White)**

Pigment-free barium sulfate filled PTFE sheet for use with aqueous hydrogen fluoride, strong caustics, and other general chemical media.

Other Sigma styles available.

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**INDUSTRIES SERVED:**

- Chemical processing
- Food and beverage
- Hydrocarbon processing
- Nuclear
- Original equipment MFG’s
- Pharmaceutical
- Power generation
- Primary metals
- Pulp and paper

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**VERSATILE.**

A New Level of Performance

Through our continued dedication to research and development, Flexitallic is now proud to offer our customers a new series of Thermiculite products.

New Thermiculite Performance Series gasket material—developed for use in more moderate temperature applications—maintains the same broad chemical resistance and freedom from oxidation that has made Thermiculite Critical Service Series such a success.

This innovative and versatile material is available in Coreless Sheet and Spiral Wound Filler styles, and is suitable for replacing aramid fiber, glass fiber, carbon fiber, PTFE and graphite in a wide array of applications.

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**COMPLETE.**

The Total Static Sealing Solution

Since its inception, Thermiculite gasket material has proven itself as an effective long-term sealing solution in over 500 of the most demanding industrial sealing applications—the most complete range since asbestos.

With the combination of Thermiculite Critical Service (800 Series) and Thermiculite Performance (700 Series), a single, proven material can be used for virtually all of your sealing requirements. That’s why we call Thermiculite The Total Static Sealing Solution.
TOTAL FREEDOM

Conventional graphite gaskets are susceptible to attack by oxidizing agents. This occurs from oxygen flowing through pipes, or simply from oxygen present in the atmosphere surrounding the flange. The rate at which graphite oxidizes depends on the application temperature and the concentration of oxygen present. But when it does happen—the end result is seal failure.

The unique composition of Thermiculite® gasket material ensures that seals maintain their integrity at maximum service temperatures far exceeding that of graphite. There really is no comparison. When it comes to worry-free sealing, choose Thermiculite Critical Service Series or Thermiculite Performance Series and eliminate the risk of oxidation altogether.

The Tightness Testing Research Laboratory (TTRL) at École Polytechnique in Montreal on behalf of the Pressure Vessel Research Council (PVRC) performed independent testing to show that the maximum service temperature for graphite in long-term service is much lower than that quoted in manufacturers' literature. This table summarizes those results.

<table>
<thead>
<tr>
<th>Required Service Life in Years</th>
<th>Maximum Service Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>691°F (366°C)</td>
</tr>
<tr>
<td>3</td>
<td>630°F (321°C)</td>
</tr>
<tr>
<td>5</td>
<td>610°F (321°C)</td>
</tr>
<tr>
<td>10</td>
<td>580°F (304°C)</td>
</tr>
</tbody>
</table>

Why Thermiculite® Critical Service Series?

- Total freedom from oxidation
- Broad chemical compatibility range
- Fire safe
- Genuine opportunity for gasket standardization and inventory consolidation
- Wide service capability

Why Thermiculite® Performance Series?

- Total freedom from oxidation
- Chemical compatibility exceeds graphite
- Fire safe
- Genuine opportunity for gasket standardization and inventory consolidation
- Wide service capability

Effective manage your gasket selection process, simplify inventory requirements, and receive proven long-term sealing with Thermiculite® gasket material - The Total Static Sealing Solution.

Contact your local Allied Distributor today!

Recommended Services for Thermiculite® Critical Service and Performance Series

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Temperature Range</th>
<th>Pressure Range</th>
<th>Typical Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanged Sheet</td>
<td>Cryogenics to 850°F / 454°C</td>
<td>Class 150 to 300</td>
<td>High temperatures, nominal pipe sizes, non-standard gaskets, problem applications, critical seals.</td>
</tr>
<tr>
<td>Spiral Wound Filler</td>
<td>Cryogenics to 850°F / 454°C</td>
<td>Class 150 to 2500</td>
<td>Available in cut gaskets and 60” x 60” sheet.</td>
</tr>
<tr>
<td>Flexpro (kammprofile) Facing</td>
<td>Cryogenics to 850°F / 454°C</td>
<td>Class 150 to 2500</td>
<td></td>
</tr>
<tr>
<td>Coreless Sheet</td>
<td>Cryogenics to 850°F / 454°C</td>
<td>Class 150 to 300</td>
<td></td>
</tr>
</tbody>
</table>

Thermiculite® Critical Service

- Graphite
- Thermiculite® Performance Series

Thermiculite® Critical Service

- Tanged Sheet
- Spiral Wound Filler
- Flexpro (kammprofile) Facing
- Coreless Sheet

Thermiculite® Performance Series

- 715 Cut Gasket
- 815 Tanged Sheet
- 835 Spiral Wound Filler
- 845 Coreless Sheet
- 835 Spiral Wound Filler
- 815 Cut Gasket