Fabreeka®-PTFE Bearing Pads

Fabreeka-PTFE bearing pads are manufactured using Fabreeka pad material with a Teflon® (PTFE) surface. The virgin Teflon is heat cured to the Fabreeka pad using a rigid, laminated thermoplastic (LTP). The rigid LTP layer prevents the PTFE from expanding/flowing under compressive load and rotation (also known as “cold flow”), as the bearing pad compresses.

Fabreeka-PTFE bearing pads are used for conditions where it is necessary to accommodate lateral movement (expansion). The PTFE provides a low friction sliding surface on the Fabreeka bearing pad, which distributes high compressive loads and accommodates rotations. In a structural bearing design, polished stainless steel is typically used as the smooth surface that the PTFE slides against.

Features and Attributes

• Commonly used in structural expansion bearings and pipe slides
• Bearing pad meets AASHTO 18.4.9.1, MIL-C-882 and most state DOT specifications
• PTFE (Teflon) surface provides low friction for expansion
• Accommodates lateral movement and rotation
• Allows for rotations up to 0.02 radians under high pressure

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness at 78°:</td>
<td>ASTM D2240</td>
<td>50-65 Durometer D</td>
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<tr>
<td>Tensile Strength:</td>
<td>ASTM D4894/4895</td>
<td>2,800 psi (min)</td>
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<tr>
<td>Elongation:</td>
<td>ASTM D4894/4895</td>
<td>200% (min)</td>
</tr>
<tr>
<td>Deformation under Load:</td>
<td>ASTM D621</td>
<td>4% (max)</td>
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<tr>
<td>78°F - 2,000 psi (1/2” x 1/2” x 1/32”)</td>
<td></td>
<td></td>
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<tr>
<td>Specific Gravity:</td>
<td>ASTM D792</td>
<td>2.14 to 2.21</td>
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</tbody>
</table>

Note: Please refer to the Fabreeka Bearing Pad specification sheet #1000-005 for the physical properties of the Fabreeka pad.
Specification for Fabreeka®-PTFE Bearing Pads

The bearing pad shall be manufactured of all new (unused) materials and composed of multiple layers of prestressed 50/50 cotton-polyester blend duck, 8.1 ounce per net square yard, duck warp count 50 ± 1 threads per inch and filling count 40 ± 2 threads per inch, impregnated and bound with a high quality, oil-impervious nitrile rubber compound, containing rot and mildew inhibitors and anti-oxidants, compounded into resilient pads of uniform thickness. The pads shall withstand compressive loads perpendicular to the plane of laminations of not less than 10,000 psi before breakdown.

The Polytetrafluorethylene (PTFE) self-lubricating surface element shall be composed of 100 percent virgin (unfilled) polytetrafluorethylene polymer and bonded to a rigid confining substrate. The substrate shall limit the flow (elongation) of the confined PTFE to not more than 0.009” under load of 2,000 psi for 15 minutes at 78°F for a 2” x 3” test sample. The virgin (unfilled) PTFE shall have a thickness of not less than 1/32”.

![Graph showing friction vs. number of sliding cycles](image)

**Additional Products for Building & Construction**

- SA-47 Bearing Pads
- Fabreeka Bearing Pads
- Structural Expansion Bearings
- Flexible Drain Trough