High-Performance Polymer with Carbon Fiber (P69D HT)

P69D HT is a high-performance, carbon-fiber-filled PEEK material designed for a wide variety of applications sealing in low to high temperatures, low to high pressures, low to high speeds and a broad range of chemicals. A major benefit of P69D HT is the material’s ability to flex at low and high pressure and at elevated temperatures. Bal Seal Engineering, Inc. has achieved NORSOK M-710 compliance for its P-69D HT seal material. An independent organization confirmed that the materials qualified against the sour gas (H2S) tests defined in the standard.

P69D HT is characterized by outstanding low friction and non-abrasive properties, when in contact with steel that has a hardness greater than Rc 30. P69D HT performs well from −70 °F (−57 °C) to +600 °F (+316 °C), making it ideal for high-strength/high-temperature applications.

Chemical Compatibility
P69D HT has excellent chemical compatibility. However, it is not recommended for use with strong acids, such as nitric, sulfuric, and hydrofluoric acids.

FDA Compliance
P69D HT is not FDA compliant.

<table>
<thead>
<tr>
<th>Mechanical Property</th>
<th>Test Criteria</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength (typical)</td>
<td>ASTM D638</td>
<td>12,000 PSI</td>
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<tr>
<td>Elongation (typical)</td>
<td>ASTM D638</td>
<td>2%</td>
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<tr>
<td>Coefficient of Friction</td>
<td>Bal Seal Method MT-56 (Tested at 20 FPM/1000 psi)</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Color
Black

Advantages of P69D HT
• Good tensile strength
• Excellent extrusion resistance
• Excellent chemical compatibility
• Performs in temperatures up to 600 °F (316 °C), depending upon the application

Typical applications for P69D HT include
• Dynamic backup or support ring applications where friction is a concern
• Oil and gas (petrochemical) sealing applications

For more information, contact a technical sales representative, or e-mail us at sales@balseal.com.