

## 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 (H<sub>2</sub>S) 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.

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

### **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](mailto:sales@balseal.com).

It is essential that the customer run evaluation testing under actual service conditions with a sufficient safety factor to determine if the proposed, supplied or purchased Bal Seal Engineering, Inc. products are suitable for the intended purpose and to confirm expected results. Bal Seal Engineering, Inc. shall not be liable for any loss or damage of any kind or nature that may result from the use of, reference to, or reliance on the information contained herein, including but not limited to consequential, special (including loss of profits) direct, indirect, incidental or similar damages, even if Bal Seal Engineering, Inc. has been advised of the possibility of such damages. © 2014, Bal Seal Engineering, Inc. All rights reserved. M-71 Rev. NC (623-82) 04/03/14

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