

High-Performance Polymer with Carbon Fiber and PTFE (P- 69 HT)

P- 69 HT is a high performance, carbon fiber-reinforced PEEK that is used for bearing-seals and backup ring applications. **P- 69 HT** is designed for applications that require tolerance for high temperature, high pressure, and chemical compatibility. A major feature of the **P- 69 HT** Bal Seal composite is its ability to flex at low and high pressures, and at elevated temperatures.

In addition, **P- 69 HT** has outstanding resistance to a wide range of chemical even at elevated temperatures. **P- 69 HT** is characterized by outstanding low friction and nonabrasive properties when in contact with steel with a hardness greater than Rc 30. Operating temperatures range from -70 °F to +600 °F (-57 °C to +316 °C.)

Chemical Compatibility

P- 69 HT has excellent chemical compatibility. However, it is not recommended for use with strong acids, such as nitric, sulfuric and hydrofluoric acids. (For more compatibility information, request report TR-60A, or go to <http://www.balseal.com/techlib>. Select **Technical Reports**, then select **TR-60A Chemical Compatibility Guide**.)

FDA compliance

P- 69 HT is not "FDA compliant." (Request Research Report 50-640 for Bal Seal's definition of FDA compliant).

Radiation Resistance

Suitable to 10⁹ rads.

Mechanical Properties

The mechanical properties of **P- 69 HT** at ambient temperatures are:

Tensile strength	ASTM D638	19,000 psi Min (1336 kg/cm ²)
Elongation	ASTM D638	3% Min

Color

Black

Cost

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Advantages of P- 69 HT

- Superior tensile strength
- Excellent extrusion resistance
- Excellent chemical compatibility
- Excellent temperature stability to 500°F (260°C)

Other Information

For additional information, please contact our Technical Sales Representative at (949) 460-2100. Bal Seal maintains a vast library of material references and testing information.

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 products are suitable for the intended purpose and to confirm expected results. Bal Seal Engineering makes no warranty, express or implied, regarding Bal Seal Engineering products or of the information contained herein, including but not limited to, warranties of merchantability, performance, and fitness for a particular use or purpose. Bal Seal Engineering 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 has been advised of the possibility of such damages. © 2010 RT-81 (50-788); M42 Rev. B (623-44 and 623-64) 04-13-10

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