



Polymer-Filled Polyether Ether Ketone for High Temperature Applications (P170)

Material Data Sheet
M-70 (Rev. 01; 12-15-20)

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Overview

P170 is a Polyether Ether Ketone (PEEK) blend, designed for sealing viscous and abrasive materials in scraping applications at elevated temperatures.

P170 exhibits high temperature and extrusion resistance, and has an operating temperature range from -70°F to 600°F (-57°C to 316°C) under dynamic conditions. It is not recommended for sealing in applications below 150°F (65°C).

Chemical Compatibility

P170 offers excellent chemical resistance to most fluids and gases; however, it is not recommended for use with sulfuric and nitric acids.

FDA Compliance

P170 is not FDA compliant.*

Color

Brown**

Heat Treatment

Certain seal sizes are supplied as P170 HT. The “HT” denotes our use of a heat treatment process to limit dimensional changes. Material properties and composition remain the same.

*Bal Seal Engineering defines “FDA compliant” materials as compositions found by the FDA to be “safe for use in food contact” or “acceptable for use in food contact,” and to contain no ingredients on the California Code of Regulations Hazardous Substance List (<https://www.dir.ca.gov/title8/339.html>).

**Color variations may occur during processing. These variations do not affect the properties or performance of the seal.

Mechanical Properties of P170

Tensile Strength (typical)	Elongation (typical)	Hardness (typical)
16500 psi	6%	87 ShoreD (63 Rc)

Advantages of P170

- Superior tensile strength
- Excellent extrusion resistance
- Excellent chemical compatibility
- Performs in temperatures up to 600 °F (316 °C), depending upon the application

Typical applications for P170

- Hot melt/glue gun applications
- Scraping applications at elevated temperatures
- Sealing viscous materials at elevated temperatures

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

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