High Performance Polymer (P-78)

A high temperature/high performance thermoplastic, **P-78** is an unfilled compression-molded material with a maximum service temperature of 650°F (343°C.) However, depending on the application, higher services temperatures for **P-78** may be possible.

P-78 is a good candidate material for "unique" high temperature applications, but is **NOT** recommended for use as a spring-energized seal material due to low elongation.

Chemical Compatibility

P-78 has acceptable service in ketones, hydrocarbons, and ethers, but has limited to unacceptable service in acids and alkalies.

FDA compliance

P-78 is not "FDA compliant." (Request Research Report 50-640 for Bal Seal's definition of FDA compliant).

Mechanical Properties

The mechanical properties of **P-78** at ambient temperatures are:

Tensile Strength	20,000 psi (138 Mpa)	ASTM D638
Elongation	3%	ASTM D638
Rockwell Hardness	M125	ASTM D785

Color

Black

Cost

$$$$$

Advantages of P-78

- Exceptional heat resistance and property retention over 400°F (205°C)
- Superior wear resistance and load–carrying capabilities at extreme temperatures
- Excellent ultrasonic transparency

Potential Applications

Chemical Process and Petrochemical Industry

Electric Connectors

Bearing Seal Applications

Bushings at High Temperature

Valve Seats

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.

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