

## 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 service 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

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### 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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