

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.

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 M-51 Rev. A (623-53 and 623-64) 04-13-10

U.S. Address 19650 Pauling Foothill Ranch, CA 92610-2610 • Telephone: (949) 460-2100 • Fax: (949) 460-2300

BV Address: VIDA Building, 1st Floor • Kabelweg 57 • 1014 BA Amsterdam • The Netherlands • Telephone: 31 20 638 65 23 • Fax: 31 20 625 60 18

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