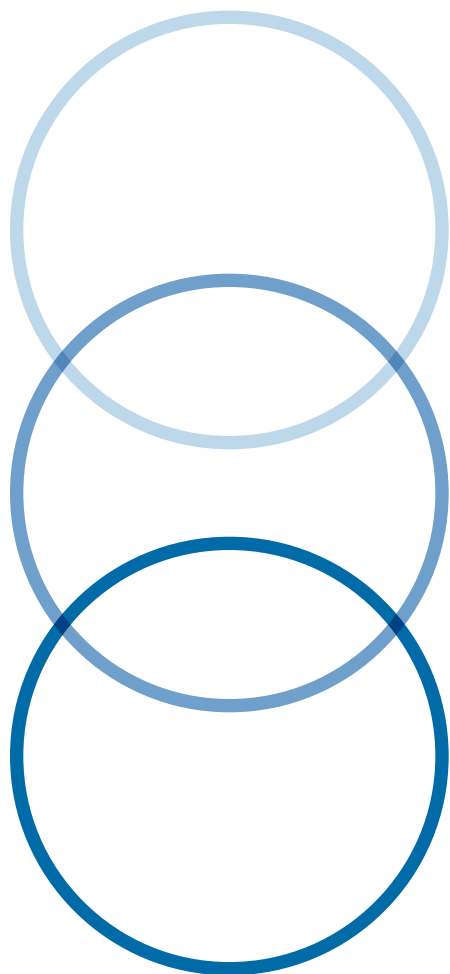




Graphite Fiber-Reinforced Polytetrafluoroethylene (GFP230HT)

Material Data Sheet
M-77 (Rev. 00, 07-31-25)

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Overview

GFP230HT is a reinforced graphite fiber Polytetrafluoroethylene (PTFE) material formulated for use in moderate to extreme conditions. It performs well in both static and dynamic service. Characteristics of this material include:

- Exceptional wear resistance, even at high pressures and speeds
- Excellent creep and wear resistance in dry, liquid, and steam environments
- Compatibility with relatively soft mating surfaces (minimum shaft hardness of 35 HRC)
- Very low gas permeability

As a jacket material, GFP230HT effectively seals against a wide range of liquids and gases, in temperatures ranging from -320 °F to +500 °F (-196 °C to +260 °C).

Chemical Compatibility

GFP230HT exhibits excellent chemical compatibility with most fluids and gases, except for some acids (such as sulfuric, nitric, and hydrofluoric). For more details, reference Bal Seal Technical Report TR-60A, *Chemical Compatibility Guide*, in the technical library section of our website at www.balseal.com.

FDA Compatible

GFP230HT is not FDA compliant or compatible. Bal Seal Engineering defines its compositions as "FDA Compliant" if each of the ingredients in the composition has been found by the FDA to be "safe for use in food contact," or "acceptable for use in food contact." This material contains no ingredients listed in the California Code of Regulations Hazardous Substances List.

Mechanical Properties

Typical Mechanical Properties of GFP230HT at Ambient Temperatures

Property	Standard	Measure
Tensile Strength	ASTM D4894	2000 psi (14 MPa)
Elongation	ASTM D4894	240%
Hardness	ASTM D2240	63 Shore D

Color

Black

Typical Applications

Aerospace Industry

- Gas sealing in aircraft hydraulic systems, such as landing gear retraction systems
- Compressed air sealing in aircraft Environmental Control Systems (ECS)

Semiconductor Manufacturing Equipment

- Chemical Vapor Deposition (CVD) equipment
- Process gas sealing in ion implantation equipment
- Corrosive gas sealing in etching equipment

Oil and Gas Industry

- Shaft seals and piston ring seals in natural gas compressors
- Gas pipelines and valve sealing in catalytic cracking units

Automotive Industry

- Compressed air sealing in turbochargers
- Gas sealing in fuel cell systems
- Air suspension systems

Other Resources

For more information, contact a technical sales representative, visit our website at www.balseal.com, or e-mail us at sales@balseal.com.

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