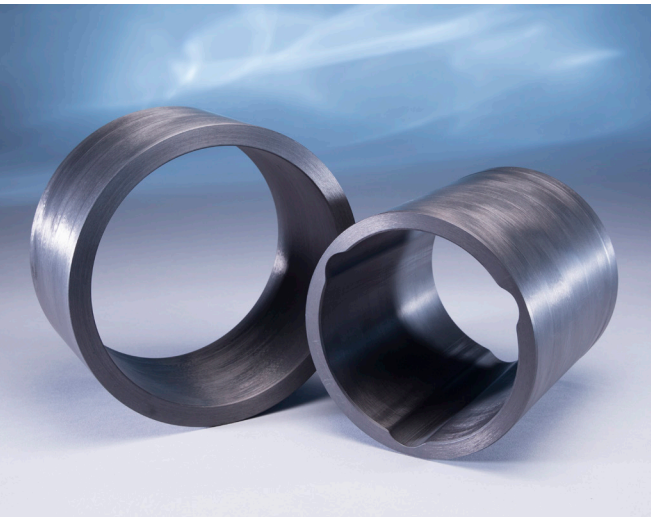
PRODUCT BROCHURE

WR® 525

High Temperature Material



Thermoplastic Composite

WR® 525 is a thermoplastic composite consisting of carbon fiber in a PEEK matrix. Because of its unique thermal expansion properties, WR® 525 is ideal for use as impeller wear rings, bushings and case wear rings.

WR® 525 allows the pump user to increase pump efficiency by running tighter wear ring clearances, while decreasing potential pump damage when pumps are cavitated or experience down-line bearing failures. WR® 525 is API 610 approved for (stationary/stationary and rotating) wear applications.

Features and Benefits

- Steel replacement
- Extremely lightweight
- Low coefficient of thermal expansion
- Excellent chemical resistance
- Nongalling/nonseizing properties
- Low coefficient of friction
- Impact resistance
- Thermal shock resistance

Typical Properties	
Physical Properties (ASTM Standard)	Typical
Color	Black
Specific Gravity (D792)	1.63
Hardness, Shore D, Points (D2240)	98
Mechanical (ASTM Standard)	
Compressive Modulus, parallel to fiber, ksi (MPa) (D695)	18,000 (124,000)
Compressive Strength, parallel to fiber, psi (MPa) (D695)	197,000 (1,360)
Tensile Modulus, parallel to fiber, ksi (MPa) (D3039)	20,000 (138,000)
Tensile Modulus, perpendicular to fiber, ksi (MPa) (D3039)	1,480 (10,200)
Tensile Strength @ Break, parallel to fiber, psi (MPa) (D3039)	300,000 (2,070)
Tensile Strength@Break, perpendicular to fiber, psi (MPa)(D3039)	12,500 (86)
Thermal	
Maximum Service Temperature, °F (°C)	525°F (273°C)

Availability

- For a length of 162 inches-164 inches, the maximum outside diameter is 60 inches.
- For a length of 414 inches-416 inches, the maximum outside diameter is 24 inches.
- Outside Diameter Capability: GT will currently build to an outside diameter of 60 inches, and can address larger diameters on demand.
- Wall Thickness: Wall thickness must be greater than 0.0055 inches. ID/radial wall thickness ratio is recommended as 10:1. There is no maximum wall thickness limitation.