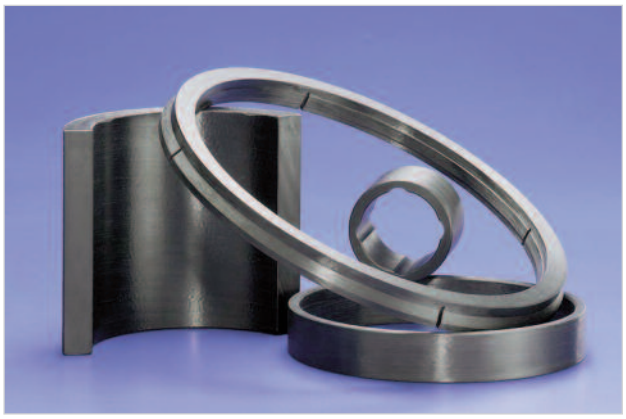
WR®525

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, WR525 is ideal for use as impeller wear rings, bushings and case wear rings.

WR525 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. WR525 is API 610 approved for (stationary/stationary and rotating) wear applications.



FEATURES

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

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.

TYPICAL PROPERTIES

Physical Properties	ASTM Method	Typical Value
Color		Black
Specific Gravity	D792	1.63
Hardness, Shore D, Points	D2240	98
Mechanical		
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)

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Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor a modification or alteration of our standard warranty which shall be applicable to such products.

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