



Thermoplastic Composite

WR® 300 is a carbon-fiber reinforced compression molded PEEK often selected by pump manufacturers and users for pump bushings and case or impeller wear rings. Maximum service life is achieved in clean, lubricated and/or moist environments.

WR® 300 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 radial bearing failures. WR® 300 is API 610 approved for (stationary/stationary and rotating) wear applications.

Standard Wear Material

Features and Benefits

- » Excellent chemical resistance
- » Nongalling/nonseizing properties
- » Low coefficient of friction
- » Impact resistance
- » Thermal shock resistance

Availability

Greene Tweed's CPI/MRO group maintains common wear ring and bushing billet sizes in inventory. Outer billet diameters range from 1 in. to 33 in. (2.54 cm. to 83.82 cm.), and lengths of up to 8 in. (20.32 cm.) are possible.

Limitations

WR® 300 should not be used in abrasive medias or in press-in applications above 275°F (135°C).

Typical Properties	
Physical Properties (ASTM Standard)	Typical
Color	Black
Specific Gravity (D792)	1.43
Hardness, Shore D, Points (D2240)	93
Hardness, Rockwell M, Points (D785)	106
Mechanical (ASTM Standard)	
Compressive Strength, psi (MPa) (D695)	29,300 (202)
Elongation @ Break, % (D638)	1.8
Flexural Modulus, psi (MPa) (D790)	1,580,000 (10,894)
Flexural Strength, psi (MPa) (D790)	30,700 (212)
Heat Distortion Temperature @ 264 psi (D648)	600°F (316°C)
Tensile Modulus, psi (MPa) (D638)	1,570,000 (10,825)
Tensile Strength @ Break, psi (MPa) (D638)	19,400 (134)
Thermal (ASTM Standard)	
Coefficient of Thermal Expansion, 15.3 x 10 ⁻⁶ in/in/degree F, (73°F to 290°F (23°C to 143°C)	15.3 x 10 ⁻⁶
Heat Distortion Temperature @ 264 psi (D648)	600°F (315°C)
Maximum Service Temperature, °F (°C)	275°F (135°C)

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 modify or alter our standard warranty applicable to such products.

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