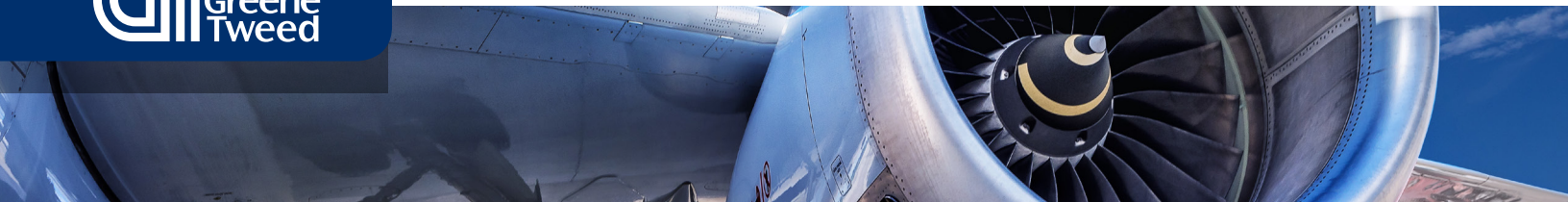


Arlon® 1330 Sealing Solutions

Compound No./Material Name:	Material Description:	Manufacturing Method:	Color:
Arlon® 1330	PEEK, Lubricated	Injection Molded	Tan

Description (ASTM Standard)	Typical
Physical & Mechanical Properties	
Specific Gravity (D792)	1.38
Hardness, Shore D, Points (D2240)	85
Hardness, Rockwell M, Points (D785)	96
Tensile Yield Strength, psi [MPa] (D638)	13,000 [89.6]
Tensile Break Strength, psi [MPa] (D638)	12,600 [86.9]
Tensile 0.5% Secant Modulus, psi [MPa] (D638)	520,000 [3,585.3]
Elongation, % (D638)	20
Flexural Strength, psi [MPa] (D790)	21,100 [145.5]
Flexural 0.5% Secant Modulus, psi [MPa] (D790)	535,000 [3,688.7]
Shear Strength, Axial, psi [MPa] (D732)	10,400 [71.7]
Shear Strength, Transverse, psi [MPa] (D732)	10,400 [71.7]
Compressive Strength @ Break, psi [MPa] (D695)	15,500 [106.9]
Deformation Under Load, % (D621)	0.14
Heat Deflection Temperature @ 264 psi [1.82 MPa], °F [°C] (D648)	330 [166]
Coefficient of Dynamic Friction, PV=12,600 psi-ft/min (G77)	0.15
Wear Factor, Modified ASTM G77, 10 ⁻¹⁰ in. ³ -min/(lb-ft-hr) (G77)	20
Coefficient of Friction, Semi-Sperse SSW2000 Slurry, IC1010 Rodel Pad (CMP Tribology [†])	0.594
Mean Square Error (MSE), Vibration Resistance, (CMP Tribology [†])	0.056
Wear Factor (Weight Loss/Specific Gravity), mg (CMP Tribology [†])	2.860
GTC Wear Factor (Weight Loss/Specific Gravity), mg (WI-SC-02-11.002)	0.171
Coefficient of Thermal Expansion, < 300°F [149°C] 10 ⁻⁶ in./(in°F) [10 ⁻⁶ cm/(cm°C)] (D696)	23 [41.4]
Coefficient of Thermal Expansion, > 300°F [149°C] 10 ⁻⁶ in./(in°F) [10 ⁻⁶ cm/(cm°C)] (D696)	82 [147.6]



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High-Temperature Properties		
Temperature	Flexural Modulus, ksi [MPa] (D790)	Shear Strength, ksi [MPa] (D732)
75°F [24°C]	— [—]	11.3 [77.9]
150°F [66°C]	472.0 [3,254.3]	9.9 [68.3]
200°F [93°C]	446.8 [3,080.6]	9.2 [63.4]
250°F [121°C]	434.0 [2,992.3]	7.8 [53.8]
300°F [149°C]	197.1 [1,359.0]	7.1 [49.0]
350°F [177°C]	53.2 [366.8]	4.5 [31.0]
400°F [204°C]	29.5 [203.4]	3.4 [23.4]
450°F [232°C]	22.9 [157.9]	2.9 [20.0]
500°F [260°C]	— [—]	2.5 [17.2]
550°F [288°C]	— [—]	2.1 [14.5]
ICP - Mass Spectrometry Analysis		
Element	TM/Poly Material, ppb	Leachable TM/SC1, ppb
Aluminum	810	1.5
Calcium	12,000	4.2
Chromium	600	0.3
Copper	*	0.9
Iron	4,000	7.2
Potassium	790	*
Magnesium	370	0.1
Sodium	150,000	2.1
Nickel	450	0.1
Lead	*	*
Tin	*	*
Titanium	370	*
Zinc	100	0.7

* Analysis revealed that the element was not found at or above the detection limit for the test.

Notes:

1. Reference GTC Stock/Solid Code: 039.
2. †Tribology Testing, CETR Parameters.