CDI ENERGY PRODUCTS®
A Michelin Group Company

Material Data Sheet

dures® H2O

COMPOUND: dures® H2O
POLYMER: Polyphenylene sulfide (PPS)
DESCRIPTION: Bearing Grade PPS Compound. Material complying with NSF/ANSI/CAN 61 requirements for Drinking Water System Components – Health Effects. Compression Molded Stock Shapes & Machined Parts.

Property	Test Method	Internal Specification Values	Typical Values	Units
Specific Gravity	ASTM D792	1.48 – 1.54	1.51	-
Hardness	ASTM D2240	80 - 90	85	SHORE-D
Tensile Strength at Break	ASTM D1708	5,100 (35.16) Minimum	6,500 (44.82)	PSI (MPa)
Tensile Elongation at Break	ASTM D1708	1.2 Minimum	2.5	%
Tensile Young's Modulus	ASTM D1708		4.2×10^5 (2,896)	PSI (MPa)
Flexural Modulus	ASTM D790		8.0×10^5 (5,516)	PSI (MPa)
Flexural Strength	ASTM D790		18,000 (124.1)	PSI (MPa)
Compressive Strength	ASTM D695		15,000 (103.4)	PSI (MPa)
Compressive Modulus	ASTM D695		2.4×10^5 (1,655)	PSI (MPa)
Wear Rate @ PV – 25,000 PSI.FPM	ASTM D3702		6.95×10^{-6}	Inch/minute
Coefficient of Friction	ASTM D3702		0.446	
Maximum Recommended Service Temperature			179.6 (82)	°F (°C)
Coefficient of Thermal Expansion Axial (Molding Direction) 70 °F – 200 °F (21 °C – 93 °C) 70 °F – 300 °F (21 °C – 149 °C) 70 °F – 400 °F (21 °C – 204 °C) 70 °F – 500 °F (21 °C – 260°C) Transverse (Perpendicular Direction) 70 °F – 200 °F (21 °C – 93 °C) 70 °F – 300 °F (21 °C – 149 °C) 70 °F – 400 °F (21 °C – 204 °C) 70 °F – 500 °F (21 °C – 260°C)	E381 TMA	 2.31 (4.16) 2.03 (3.65) 2.57 (4.62) 5.03 (9.06) 2.74 (4.92) 4.14 (7.45) 5.08 (9.14) 6.71 (12.07)		$X\ 10^{-5}\ F^{-1}$ ($°C^{-1}$)

REVISION HISTORY
REV. NONE – Initial Release – 11/01/2022 RSK