dures® 250 Non-Metallic Wear Material for Pump Applications

Grade Number: KCP0A
Material References: dures® 250
Polymer Family: PEEK (Poly Ether Ether Ketone)
Description: High Abrasion Resistant Proprietary PEEK Compound – Compression Molded Stock Shapes and Machined Parts

Property	ASTM Method	Specification Limits	Typical Values	Units
Hardness	D2240	75 - 85	80	SHORE-D
Specific Gravity	D792	1.65 - 1.59	1.62	
Elongation at Break	D1708	2.5 Min	4.0	%
Tensile Strength at Break	D1708	4,000 (27.58) Min	5,000 (34.5)	PSI (MPa)
Tensile Modulus, Secant 0.5%	D1708		2.6×10^5 (1793)	PSI (MPa)
Compressive Strength	D695		10,360 (71.4)	PSI (MPa)
Compressive Modulus at Max. Load	D695		2.46×10^5 (1696)	PSI (MPa)
Flexural Strength	D790		12,600 (86.9)	PSI (MPa)
Flexural Modulus	D790		5×10^5 (3447)	PSI (MPa)
Coefficient of Thermal Expansion (78 to 400°F)	D696		1.56×10^{-5} (2.8×10^{-5})	1/F° (1/°C)
Wear Rate @ PV=25,000 PSI.FPM	D3702		4.64×10^{-6}	Inch per minute
Coefficient of Friction	D3702		0.30	
Recommended Service Temperature			-100 (-73) Min Continuous 250 (121) Max Continuous 270 (135) Short Excursion	°F (°C)