



POLESTAR POLYMERS

An ISO 9001 : 2015 Certified Company

POLESTAR[®] UHMWPE

Technical Data Sheet - Rods

Properties	Test Method	Unit	Value
Density	ASTM D792	g/cm ³	0.93
Average Molecular Weight		g/mol	4.5 x 10 ⁶
Ultimate Tensile Strength	ASTM D638 ISO 527	N/mm ²	> 40
Elongation	ASTM D638 ISO 527	%	> 300
Ball Indention hardness		N/mm ²	38
Shore Hardness	ASTM D2240 ISO 868	D Scale	62 to 67
Notch Impact Strength	ASTM D256		No Failure
Static / Kinetic Frictional Co-eff	ASTM D1894		0.10 / 0.09
Abrasion Index (ISO 15527 = 100)	Sand slurry - Internal		91
Melting Point	ASTM D3418	°C	135 to 140
Thermal Conductivity (at 20°C)	ASTM D177	W/m-K	0.49
Volume Resistivity	ASTM D257	Ω.cm	10 ¹²
Surface Resistivity	ASTM D257	Ω	10 ¹⁴
Dielectric Strength	ASTM D149	kV/cm	900
Water absorption	ASTM D570	%	0.01

Note: The information contained herein are typical values intended for reference and comparison purposes only. They should not be used as a basis for design specifications or quality control. POLESTAR POLYMERS will not provide any legally binding guarantee of certain properties or any suitability.