



MARCO COMPOUND # PL1002 UNFILLED PEEK (Polyetherether Ketone) Technical Datasheet

Mechanical Properties

Property	ASTM	US Value	SI Units
Tensile Strength	D638	14,000 psi	97 MPa
Tensile Modulus	D638	510,000 psi	3.5 GPa
Elongation at Break	D638	>30%	>30%
Flexural Strength, (yield)	D790	23,000 psi	159 GPa
Flexural Modulus	D790	510,000 psi	3.5 GPa
Izod Impact, Notched, ft-lb/in @1/8"	D256	1.8	0.96 J/cm
Izod, Unnotched	D256	No Break	No Break
Compressive Strength	D695	19,000 psi	131 MPa
Hardness, Rockwell M	D785	88 Shore D	M102
Specific Gravity	D792	1.3	1.3
Water Absorption (24hrs. @ 23 °C)	D570	<0.2%	<0.2%
Color		Tan	Tan

Thermal Properties

Melting Point	DSC/D3418	642° F	339° C
Tg	DSC/D3418	289° F	143° C
Flammability Rating (UL94)	UL 94	V-0	V-0
HDT @264 psi, °F	DMA/D648	320° F	160° C
Thermal Conductivity, BTU in/hr-ft ² - °F	F443/C177	1.73	0.25 W/m-K
CLTE, Linear μ in/in-°F (<Tg)	D696/E831	26	27 μ m/m-° C

Electrical Properties

Dielectrical Strength, V/mil	D149	480	18 KV/mm
Dielectrical Constant @1KHz	D150	3.3	3.3
Dissipation Factor @ 1 KHz	D150	0.004	0.004
Volume Resistivity, 10 ¹⁶ ohm-cm	D257	1	1
Surface Resistivity, 10 ¹⁶ ohm-cm	D257	2	2

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.