Quadrant EPP Ketron® PEEK LSG

Material Notes:
KETRON® PEEK LSG natural / black stock shapes are produced frombatches of Victrex PEEK. This material exhibits a unique combination of mechanical properties, temperature and chemical resistance. The composition of the resin used for the production of the KETRON® PEEK LSG stock shapes complies with the regulations that apply in the Member States of the European Union (Directive 2002/72/EC, as amended) and in the United States of America (FDA) for plastic materials and articles intended to come into contact with foodstuffs. KETRON PEEK LSG stock shapes have also been successfully type tested for their compliance with both United States Pharmacopeia (USP) and ISO 10993-1 guideline requirements for Biocompatibility Testing of Materials, and they come with full traceability from resin to stock shape. These features, added to an excellent sterilizability by means of steam, dry heat, ethylene oxide, plasma and gamma irradiation, make KETRON PEEK LSG stock shapes very suitable for applications in the medical, pharmaceutical and biotechnology markets.

Physical Properties	Metric	English	Comments
Specific Gravity	1.31 g/cc	0.0473 lb/in³	ISO 1183
Water Absorption	0.05 %	0.05 %	Immersion, 24hr; ISO 62
Water Absorption at Saturation	0.12 %	0.12 %	Immersion, 96hr; ISO 62
Mechanical Properties			
Hardness, Rockwell M	105	105	ISO 2039-2
Tensile Strength, Ultimate	115 MPa	16675 psi	ISO 527
Elongation at Break	17 %	17 %	ISO 527
Tensile Modulus	4.3 GPa	623.5 ksi	ISO 527
Flexural Yield Strength	170 MPa	24650 psi	ISO 178
Compressive Strength	140 MPa	20300 psi	5% Def.; ISO 604
Electrical Properties			
Surface Resistivity per Square	Min 1e+013 ohm	Min 1e+013 ohm	IEC 60093
Dielectric Constant	3.2	3.2	1 MHz; IEC 60250
Dielectric Strength	24 kV/mm	610 V/mil	IEC 60243
Dissipation Factor	0.002	0.002	1 MHz; IEC 60250
Thermal Properties			
CTE, linear 68°F	55.1 µm/m-°C	30.6 µin/in-°F	(23°C to 150°C)
Thermal Conductivity	0.249 W/m-K	1.73 BTU-in/hr-ft²-°F	
Melting Point	340 °C	644 °F	ISO 11357
Maximum Service Temperature, Air	250 °C	482 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	160 °C	320 °F	ISO 75A
Flammability, UL94 (Estimated Rating)	V-0	V-0	1.5 and 3 mm