

Quadrant EPP Ketron® PEEK-CLASSIX LSG

Material Notes:

KETRON® PEEK-CLASSIX LSG white stock shapes are produced from Invibio® PEEK-CLASSIX White resin. This material exhibits a unique combination of mechanical properties, temperature and chemical resistance. The composition of the Invibio PEEK-CLASSIX White resin 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-CLASSIX 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-CLASSIX LSG stock shapes very suitable for applications in the medical, pharmaceutical and biotechnology markets.

Physical Properties	Metric	English	Comments
Specific Gravity	1.39 g/cc	0.0502 lb/in ³	ISO 1183
Water Absorption	0.05 %	0.05 %	Immersion, 24hr; ISO 62
Water Absorption at Saturation	0.11 %	0.11 %	Immersion, 96hr; ISO 62
Mechanical Properties			
Hardness, Rockwell M	105	105	ISO 2039-2
Tensile Strength, Ultimate	115 MPa	16675 psi	
Elongation at Break	14 %	14 %	ISO 527
Tensile Modulus	4.6 GPa	667 ksi	ISO 527
Flexural Yield Strength	175 MPa	25375 psi	ISO 178
Compressive Strength	143 MPa	20735 psi	5% Def.; ISO 604
Electrical Properties			
Surface Resistivity per Square	Min 1e+013 ohm	Min 1e+013 ohm	IEC 60093
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-ft ² -°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)	165 °C	329 °F	
Flammability, UL94 (Estimated Rating)	V-0	V-0	1.5 and 3 mm

All statements, technical information and recommendations contained in this database are presented in good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Quadrant EPP and Automation Creations, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customer's responsibility to determine the suitability of Quadrant EPP's products in any given application.