

**Mitsubishi Chemical Advanced Materials Ketron® GF30 LSG PEEK, Extruded 30% Glass-Reinforced Polyetherether Ketone (ASTM Product Data Sheet)**
**Categories:** Polymer; Thermoplastic; Polyketone; Polyetheretherketone (PEEK); Polyetheretherketone, PEEK, Glass Fiber Filled

**Material Notes:** Quadrant Engineering Plastic Products is now Mitsubishi Chemical Advanced Materials.

Physical Properties	Metric	English	Comments
Specific Gravity	1.51 g/cc	1.51 g/cc	ASTM D792
Water Absorption	0.10 %	0.10 %	Immersion, 24hr; ASTM D570
Water Absorption at Saturation	0.30 %	0.30 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	103	103	ASTM D785
Hardness, Rockwell R	126	126	ASTM D785
Hardness, Shore D	89	89	ASTM D2240
Ball Indentation Hardness	215 MPa	31200 psi	ISO 2039-1
Tensile Strength	96.5 MPa	14000 psi	ASTM D638
Tensile Strength at 150°C (300°F)	13.8 MPa	2000 psi	ASTM D638
Tensile Strength at 65°C (150°F)	75.8 MPa	11000 psi	ASTM D638
Elongation at Break	2.0 %	2.0 %	ASTM D638
Tensile Modulus	6.89 GPa	1000 ksi	ASTM D638
Flexural Strength	159 MPa	23000 psi	ASTM D790
Flexural Modulus	6.89 GPa	1000 ksi	ASTM D790
Compressive Strength	152 MPa	22000 psi	10% Def.; ASTM D695
Compressive Modulus	3.79 GPa	550 ksi	ASTM D695
Shear Strength	96.5 MPa	14000 psi	
Izod Impact, Notched	0.427 J/cm	0.800 ft-lb/in	

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	$\geq 1.00\text{e}+13$ ohm	$\geq 1.00\text{e}+13$ ohm	IEC 60093
Dielectric Strength	19.7 kV/mm	500 kV/in	

Thermal Properties	Metric	English	Comments
CTE, linear	21.6 $\mu\text{m}/\text{m}\cdot\text{C}$ @Temperature -40.0 - 149 °C	12.0 $\mu\text{in}/\text{in}\cdot\text{F}$ @Temperature -40.0 - 300 °F	ASTM E831
Thermal Conductivity	0.429 W/m-K	2.98 BTU-in/hr-ft <sup>2</sup> ·F	
Melting Point	340 °C	644 °F	ASTM D3418
Maximum Service Temperature, Air	249 °C	480 °F	
Deflection Temperature at 1.8 MPa (264 psi)	232 °C	450 °F	ASTM D648
Flammability, UL94	V-0 @Thickness 3.00 mm	V-0 @Thickness 0.118 in	

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
Canada AG	No	No	
FDA	No	No	
NSF	No	No	
USDA	No	No	
USP Class VI	Yes	Yes	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Limited	Limited	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Acceptable	Acceptable	
Alkalies, Weak	Acceptable	Acceptable	
Chlorinated Solvents	Acceptable	Acceptable	
Conductive / Static Dissipative	No	No	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Acceptable	Acceptable	
Hydrocarbons - Aliphatic	Acceptable	Acceptable	
Hydrocarbons - Aromatic	Acceptable	Acceptable	

Inorganic Salt Solutions	Acceptable	Acceptable
Ketones, Esters	Acceptable	Acceptable
<b>Descriptive Properties</b>		
Color		Natural



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