KT 820 GF30 PEEK

30% Glass Fiber Reinforced

DESCRIPTION

KT 820 GF30 is a 30% glass fiber reinforced PEEK. It is characterized by a combination of fatigue resistance, stability during machining, electrical insulation, and excellent chemical resistance. The polymer offers higher strength and stiffness properties relative to unreinforced PEEK. Its glass reinforcement affords greater mechanical robustness in structural applications.

TYPICAL APPLICATIONS:

- Back-up seals
- Electrical stand-offs
- Structural parts in corrosive service
- High temperature insulators and connectors

EXTRUDED SHAPES PROPERTIES

PHYSICAL PROPERTIES	METRIC	IMPERIAL	METHODS
Specific Gravity	1.53 g/cc	0.0553 lb/in^3	ASTM D792
Water Absorption	0.10%	0.10%	Immersion, 24hr; ASTM D570
Water Absorption at Saturation	0.3%	0.3%	Immersion; ASTM D570
MECHANICAL PROPERTIES[1]			
Hardness, Rockwell M		103	ASTM D785
Hardness, Rockwell R		126	ASTM D785
Hardness, Shore D		89	ASTM D2240
Tensile Strength, Ultimate	110 MPa	16,000 PSI	ASTM D638
Elongation at Break	5%	5%	ASTM D638
Tensile Modulus	6,900 MPa	1,000,000 PSI	ASTM D638
Flexural Modulus	6,900 MPa	1,000,000 PSI	ASTM D790
Flexural Yield Strength	172 MPa	25,000 PSI	ASTM D790
Compressive Strength	152 MPa	22,000 PSI	10% Def.; ASTM D695
Compressive Modulus	4,136 MPa	600,000 PSI	ASTM D695
Izod Impact (notched)	63 J/m	1.2 ft-lbs/in	ASTM D256
THERMAL PROPERTIES			
Glass Transition Temp./T_g	150° C	302° F	ASTM D3417
Coefficient of Linear Thermal Expansion	2.1 x 10^{-5} C^{-1}	1.2 x 10^{-5} F^{-1}	ASTM E831

[1]The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated from test specimens injection molded under optimum conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity as a result of processing, and fiber alignment inherent in all reinforced plastic shapes, regardless of process. For additional information on the effects of fiber alignment, see Drake Fiber Orientation Diagram, available on the Resource page of our website.