

Product Data Sheet

Ketron® PEEK CA30



Extruded 30% Carbon fiber reinforced polyetheretherketone. The addition of carbon fibers enhances the compressive strength and stiffness of PEEK, and dramatically lowers its expansion rate. It offers designers optimum wear resistance and load carrying capability in a PEEK-based product. This grade provides 3-1/2 times higher thermal conductivity than unreinforced PEEK--dissipating heat from the bearing surface faster.

Property	Method	Unit	Value
Mechanical			
Specific Gravity, 73°F	D792		1.41
Tensile Strength, 73°F	D638	psi	19,000
Tensile Modulus of Elasticity, 73°F	D638	psi	1,100,000
Elongation, 73°F	D638	%	5.0
Flexural Strength, 73°F	D790	psi	25,750
Flexural Modulus, 73°F	D790	psi	1,250,000
Compressive Strength, 10% Def., 73°F	D695	psi	29,000
Hardness, Rockwell, Scale as noted, 73°F	D785		M102
Hardness, Durometer, Shore D scale, 73°F	D2240		D93
Izod Impact (notched), 73°F	D256 Type A	ft-lb/in	1.0
Coefficient of Friction (Dry vs Steel) Dynamic	PTM55007		0.20
Limiting PV, 73°F	PTM55007	psi-fpm	25,000
k (wear) factor	PTM55010		150
Thermal			
Coefficient of linear Thermal Expansion	E-831(TMA)	in/in/°F	1.00 x 10 ⁻⁵
Deflection Temperature 264 psi	D648	°F	518
Tg-Glass Transition (amorphous)	D3418	°F	289
Melting Point (crystalline) peak	D3418	°F	644
Continuous Service Temperature in Air (Max.)		°F	482
Thermal Conductivity		BTU-in/(hr-ft ² °F)	6.40
Electrical			
Dielectric Strength, Short Term	D149(2)	Volts/mil	32
Surface Resistivity	EOS/ESD S11.11	Ohm/square	<10 ⁵

For additional information about our products call 1-800-366-0300 or via e-mail at select.support@qplas.com

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Chemical			
Acids, Weak, 73°F/23°C, acetic acid, dilute hydrochloric or sulfuric			Acceptable Service
Acids, Strong, 73°F/23°C, conc. hydrochloric or sulfuric			Limited Service
Alkalies, Weak, 73°F/23°C, dilute ammonia or sodium hydroxide			Acceptable Service
Alkalies, Strong, 73°F/23°C, conc. ammonia or sodium hydroxide			Acceptable Service
Hydrocarbons-Aromatic, 73°F/23°C, benzene, toluene			Acceptable Service
Hydrocarbons-Aliphatic, 73°F/23°C, gasoline, hexane, grease			Acceptable Service
Ketones, Esters, 73°F/23°C, acetone, methyl ethyl ketone			Acceptable Service
Ethers, 73°F/23°C, diethyl ether, tetrahydrofuran			Acceptable Service
Chlorinated Solvents, 73°F/23°C, methylene chloride, chloroform			Acceptable Service
Alcohols, 73°F/23°C, methanol, ethanol, anti-freeze			Acceptable Service
Inorganic Salt Solutions, 73°F/23°C, sodium chloride, potassium cyanate			Acceptable Service
Continuous Sunlight, 73°F/23°C			Acceptable Service
Miscellaneous			
Water Absorption Immersion, 24 hr	D570	%	0.06
Water Absorption Immersion, Sat.	D570	%	0.30
Outgassing TML (Total Mass Loss)	E595	%	0.30
CVCM (Collected Volatile Condensable Material)	E595	%	0.00
WVR(Water Vapor Regained)	E595	%	0.00
Compliance			
UL94			V-0

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