

Product Data Sheet



Ketron® PEEK 1000

Ketron PEEK grades offer chemical and hydrolysis resistance similar to PPS, but can operate at higher temperatures. Unreinforced, extruded Ketron PEEK offers good wear resistance and can be used continuously to 480°F (250°C). It can also be used in hot water or steam without permanent loss in physical properties. For hostile environments, PEEK is a high strength alternative to fluoropolymers. PEEK carries a V-O flammability rating and exhibits very low smoke and toxic gas emission when exposed to flame.

Property	Method	Unit	Value
Mechanical			
Specific Gravity, 73°F	D792		1.31
Tensile Strength, 73°F	D638	psi	16,000
Tensile Modulus of Elasticity, 73°F	D638	psi	500,000
Elongation, 73°F	D638	%	20.0
Flexural Strength, 73°F	D790	psi	25,000
Flexural Modulus, 73°F	D790	psi	600,000
Shear Strength, 73°F	D732	psi	8,000
Compressive Strength, 10% Def., 73°F	D695	psi	20,000
Compressive Modulus of Elasticity, 73°F	D695	psi	500,000
Hardness, Rockwell, Scale as noted, 73°F	D785		M100 (R126)
Hardness, Durometer, Shore D scale, 73°F	D2240		D85
Izod Impact (notched), 73°F	D256 Type A	ft-lb/in	1.0
Coefficient of Friction (Dry vs Steel) Dynamic	PTM55007		0.40
Limiting PV, 73°F	PTM55007	psi-fpm	8,500
k (wear) factor	PTM55010		375
Thermal			
Coefficient of linear Thermal Expansion	E-831(TMA)	in/in/°F	2.60 x 10 ⁻⁵
Deflection Temperature 264 psi	D648	°F	320
Melting Point (crystalline) peak	D3418	°F	644
Continuous Service Temperature in Air (Max.)		°F	480
Thermal Conductivity		BTU-in/(hr-ft ² °F)	1.80

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

All statements, technical information and recommendations contained in this publication are presented good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Quadrant EPP 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. Fluorosint, Nylatron, Ertalyte, Acetron, MC and Techtron are all registered trademarks of Quadrant EPP. Delrin and Teflon are registered trademarks of E. I. DuPont, Torlon - Solvay Advanced Polymers, Ultem-GE Plastics.

Product Data Sheet



Ketron® PEEK 1000

Property	Method	Unit	Value
Electrical			
Dielectric Strength, Short Term	D149(2)	Volts/mil	480
Surface Resistivity	EOS/ESD S11.11	Ohm/square	>10 ¹³
Dielectric Constant, 10 ⁶ Hz	D150(2)		3.30
Dissipation Factor, 10 ⁶ Hz	D150(2)		0.003
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			Limited Service
Miscellaneous			
Water Absorption Immersion, 24 hr	D570	%	0.10
Water Absorption Immersion, Sat.	D570	%	0.50
Ionic Impurities - Na (Sodium)	Total Digestion	ppm	480.00
Ionic Impurities - K (Potassium)	Total Digestion	ppm	0.20
Ionic Impurities - Fe (Iron)	Total Digestion	ppm	0.40
Outgassing TML (Total Mass Loss)	E595	%	0.30
CVCM (Collected Volatile Condensable Material)	E595	%	0.00
WVR(Water Vapor Regained)	E595	%	0.10
Compliance			
UL94			V-0
FDA			Yes
USDA			Yes
3A-Dairy			Yes
USP Class VI			Yes

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

All statements, technical information and recommendations contained in this publication are presented good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Quadrant EPP 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. Fluorosint, Nylatron, Ertalyte, Acetron, MC and Techtron are all registered trademarks of Quadrant EPP. Delrin and Teflon are registered trademarks of E. I. DuPont, Torlon - Solvay Advanced Polymers, Ultem-GE Plastics.