

Duratron® XP

Duratron XP is a compression-molded polyimide that offers high purity, high strength, high heat resistance, and good machinability. These properties, combined with its chemical resistance and dimensional stability, make Duratron XP ideal for components in semiconductor manufacturing and test equipment.

Property	Method	Unit	Value
Mechanical			
Specific Gravity, 73°F	D792		1.40
Tensile Strength, 73°F	D638	psi	16,000
Tensile Modulus of Elasticity, 73°F	D638	psi	583,000
Elongation, 73°F	D638	%	4.0
Flexural Strength, 73°F	D790	psi	20,000
Flexural Modulus, 73°F	D790	psi	600,000
Compressive Strength, 10% Def., 73°F	D695	psi	24,000
Compressive Modulus of Elasticity, 73°F	D695	psi	450,000
Hardness, Rockwell, Scale as noted, 73°F	D785		M112
Izod Impact (notched), 73°F	D256 Type A	ft-lb/in	1.4
Coefficient of Friction (Dry vs Steel) Dynamic	PTM55007		0.23
Limiting PV, 73°F	PTM55007	psi-fpm	32,500
k (wear) factor	PTM55010		50
Thermal			
Coefficient of linear Thermal Expansion	E-831(TMA)	in/in/°F	2.70 x 10 ⁻⁵
Deflection Temperature 264 psi	D648	°F	680
Tg-Glass Transition (amorphous)	D3418	°F	613
Continuous Service Temperature in Air (Max.)		°F	580
Thermal Conductivity		BTU-in/(hr-ft ² °F)	1.53
Electrical			
Dielectric Strength, Short Term	D149(2)	Volts/mil	700
Surface Resistivity	EOS/ESD S11.11	Ohm/square	>10 ¹³
Dielectric Constant, 10 ⁶ Hz	D150(2)		3.41
Dissipation Factor, 10 ⁶ Hz	D150(2)		0.003

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



Duratron® XP

Property	Method	Unit	Value
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			Limited Service
Alkalies, Strong, 73°F/23°C, conc. ammonia or sodium hydroxide			Unacceptable
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	%	0.40
Water Absorption Immersion, Sat.	D570	%	1.30
Ionic Impurities - Na (Sodium)	Total Digestion	ppm	0.60
Ionic Impurities - K (Potassium)	Total Digestion	ppm	0.30
Ionic Impurities - Fe (Iron)	Total Digestion	ppm	0.80
Outgassing TML (Total Mass Loss)	E595	%	0.80
CVCM (Collected Volatile Condensable Material)	E595	%	0.00
WVR(Water Vapor Regained)	E595	%	0.30
Compliance			
UL94			V-0

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