

Product Data Sheet



Acetron® GP Acetal vs. Delrin* Acetal

Acetron® GP Acetal: Acetal, porosity-free copolymer, unfilled, extruded

Delrin* Acetal: Acetal homopolymer, unfilled, extruded

Property	Unit	Acetron® GP Acetal	Delrin* Acetal
Mechanical			
Specific Gravity, 73°F		1.41	1.41
Tensile Strength, 73°F	psi	9,500	11,000
Tensile Modulus of Elasticity, 73°F	psi	400,000	450,000
Elongation, 73°F	%	30.0	30.0
Flexural Strength, 73°F	psi	12,000	13,000
Flexural Modulus, 73°F	psi	400,000	450,000
Shear Strength, 73°F	psi	8,000	9,000
Compressive Strength, 10% Def., 73°F	psi	15,000	16,000
Compressive Modulus of Elasticity, 73°F	psi	400,000	450,000
Hardness, Rockwell, Scale as noted, 73°F		M88 (R120)	M89 (R122)
Hardness, Durometer, Shore D scale, 73°F		D85	D86
Izod Impact (notched), 73°F	ft-lb/in	1.0	1.0
Coefficient of Friction, Dry vs Steel-Dynamic		0.25	0.25
Limiting PV, 73°F	psi-fpm	2,700	2,700
k (wear) factor		200	200
Thermal			
Coeff. of linear Thermal Expansion	in/in/°F	5.40 x 10 ⁻⁵	4.70 x 10 ⁻⁵
Deflection Temperature 264 psi	°F	220	250
Melting Point (crystalline) peak	°F	335	347
Continuous Service Temp. in Air (Max)	°F	180	180
Thermal Conductivity	BTU-in/(hr-ft ² -°F)	1.60	2.50
Electrical			
Dielectric Strength, Short Term	Volts/mil	420	450
Surface Resistivity	Ohm/square	10 ¹⁵	10 ¹³
Dielectric Constant, 10 ⁶ Hz		3.80	3.70
Dissipation Factor, 10 ⁶ Hz		0.0050	0.0050

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

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Property	Unit	Acetron® GP Acetal	Delrin* Acetal
Chemical			
Acids, Weak, 73°F/23°C, acetic acid, dilute hydrochloric or sulfuric		Limited Service	Limited Service
Acids, Strong, 73°F/23°C, conc. hydrochloric or sulfuric		Unacceptable	Unacceptable
Alkalies, Weak, 73°F/23°C, dilute ammonia or sodium hydroxide		Acceptable Service	Acceptable Service
Alkalies, Strong, 73°F/23°C, conc. ammonia or sodium hydroxide		Unacceptable	Unacceptable
Hydrocarbons-Aromatic, 73°F/23°C, benzene, toluene		Acceptable Service	Acceptable Service
Hydrocarbons-Aliphatic, 73°F/23°C, gasoline, hexane, grease		Acceptable Service	Acceptable Service
Ketones, Esters, 73°F/23°C, acetone, methyl ethyl ketone		Acceptable Service	Acceptable Service
Ethers, 73°F/23°C, diethyl ether, tetrahydrofuran		Acceptable Service	Acceptable Service
Chlorinated Solvents, 73°F/23°C, methylene chloride, chloroform		Limited Service	Limited Service
Alcohols, 73°F/23°C, methanol, ethanol, anti-freeze		Acceptable Service	Acceptable Service
Inorganic Salt Solutions, 73°F/23°C, sodium chloride, potassium cyanate		Acceptable Service	Acceptable Service
Continuous Sunlight, 73°F/23°C		Limited Service	Limited Service
Miscellaneous			
Water Absorption Immersion, 24 hr.	%	0.20	0.20
Water Absorption Immersion, Sat.	%	0.90	0.90
Outgassing TML (Total Mass Loss)	%	0.50	0.30
CVCM (Collected Volatile Condensable Material) %		0.00	0.00
WVR(Water Vapor Regained)	%	0.10	0.10
Compliance			
UL94		HB	HB
FDA		Yes	Yes
USDA		Yes	Yes
NSF		Yes	Yes
Canada AG		Yes	Yes

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