		Product Description	Units	Test Method ASTM	Nylon 101 Unfilled Type 66	Nylatron® GS Nylon MoS2 Filled Type 66	Acetron® GP Acetal Unfilled Porosity-free Acetal	Semitron® ESD 225 Static Dissipative Acetal	Delrin® Acetal Unfilled Acetal
MECHANICAL	1	Specific Gravity, 73° F.	-	D792	1.15	1.16	1.41	1.33	1.41
	2	Tensile Strength, 73° F.	psi	D638	11,500	12,500	9,500	5,400	11,000
	3	Tensile Modulus of Elasticity, 73° F.	psi	D638	425,000	480,000	400,000	200,000	450,000
	4	Tensile Elongation (at break), 73° F.	%	D638	50	25	30	15	30
	5	Flexural Strength, 73° F.	psi	D790	15,000	17,000	12,000	7,300	13,000
	6	Flexural Modulus of Elasticity, 73° F.	psi	D790	450,000	460,000	400,000	220,000	450,000
	7	Shear Strength, 73° F.	psi	D732	10,000	10,500	8,000	6,000	9,000
	8	Compressive Strength, 10% Deformation, 73° F.	psi	D695	12,500	16,000	15,000	8,000	16,000
	9	Compressive Modulus of Elasticity, 73° F.	psi	D695	420,000	420,000	400,000	175,000	450,000
	10	Hardness, Rockwell, Scale as noted, 73° F.	-	D785	M85(R115)	M85(R115)	M88(R120)	M50(R108)	M89(R122)
	11	Hardness, Durometer, Shore "D" Scale, 73° F.	-	D2240	D80	D85	D85	D76	D86
	12	Izod Impact (notched), 73° F.	ft.lbs./in.of notch	D256 Type "A"	0.6	0.5	1.0	1.5	1.0
	13	Coefficient of Friction (Dry vs Steel) Dynamic	-	PTM 55007	0.25	0.20	0.25	0.29	0.25
	14	Limiting PV (with 4:1 safety factor applied)	ft.lbs./in.^{2} min	PTM 55007	2,700	3,000	2,700	2,000	2,700
	15	Wear Factor "k"	in^3-min/ft.lbs.hr	PTM55010	80	90	200	30	200
THERMAL	16	Coefficient of Linear Thermal Expansion (40°F tp 300°F)	in./in./°F	E-831 (TMA)	5.50×10^{-5}	4.00×10^{-5}	5.40×10^{-5}	9.30×10^{-5}	4.70×10^{-5}
	17	Heat Deflection Temperature 264 psi	°F	D648	200	200	220	225	250
	18	Tg-Glass Transition (amorphous)	°F	D3418	N/A	N/A	N/A	N/A	N/A
	19	Melting Point (crystalline) peak	°F	D3418	500	500	335	320	347
	20	Continuous Service Temperature in Air (Max.) (1)	°F	-	210	220	180	180	180
	21	Thermal Conductivity	BTU in./hr.ft.°F	F433	1.7	1.7	1.6	-	2.5
ELECTRICAL	22	Dielectric Strength, Short Term	Volts/mil	D149	400	350	420	-	450
	23	Surface Resistivity	ohm/square	EOS/ESD S11.11	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	10^9- 10^{10}	$> 10^{13}$
	24	Dielectric Constant, 10^6 HZ	-	D150	3.6	-	3.8	-	3.7
	25	Dissipitation Factor, 10^6 HZ	-	D150	0.02	-	0.005	-	0.005
	26	Flammability @ 3.1 mm (1/8 in.) (5)		UL94	V-2	V-2	HB	HB	HB
CHEMICAL	27	Water Absorption Immersion, 24 Hours	% by wt.	D570 (2)	0.3	0.3	0.2	2.0	0.2
	28	Water Absorption Immersion, Saturation	% by wt.	D570 (2)	7.0	7.0	0.9	8.0	0.9
	29	Acids, Weak, 73° F., acetic acid, dilute hydrochloric or sulfuric acid			L	L	L	L	L
	30	Acids, Strong, 73° F., conc. hydrochloric or sulfuric acid			U	U	U	U	U
	31	Alkalies, Weak, 73° F., dilute ammonia or sodium hydroxide			L	L	A	A	A
	32	Alkalies, Strong, 73° F., strong ammonia or sodium hydroxide			U	U	U	U	U
	33	Hydrocarbons-Aromatic, 73° F., benzene, toluene			A	A	A	A	A
	34	Hydrocarbons-Aliphatic, 73° F., gasoline, hexane, grease			A	A	A	A	A
	35	Ketones, Esters, 73° F., acetone, methyl ethyl ketone			A	A	A	A	A
	36	Esters, 73° F., diethyl ether, tetrahydrofuran			A	A	A	A	A
	37	Chlorinated Solvents, 73° F., methylene chloride, chloroform			L	L	L	L	L
	38	Alcohols, 73° F., methanol, ethynol, anti-freeze			L	L	A	A	A
	39	Inorganic Salt Solutions, 73° F., sodium chloride, potassium cyanate			A	A	A	A	A
	40	Continuous Sunlight, 73° F.			L	L	L	L	L
OTHER	41	Relative Cost (4)			$	$	$	$$	$
	42	Relative Machinability (1-10, 1 Easier to Machine)			1	1	1	1	1

Chemical Resistance Key: **A - Acceptable Service**
L - Limited Service
U - Unacceptable

	Delrin® AF Blend Acetal	Ertalyte® PET-P	Ertalyte® TX	PC 1000 Polycarbonate	PSU 1000 Polysulfone	Radel® R	Ultem® 1000	Ultem® 2300	Techtron® PPS	Techtron® HPV	Ketron® PEEK 1000
	Teflon® Filled Acetal	Semi-crystalline Thermoplastic Polyester	Semi-crystalline Thermoplastic Polyester	Unfilled Lexan®	Unfilled Polysulfone	Unfilled Polyphenyl-sulfone	Unfilled Polyetherimide	30% Glass reinforced Polyetherimide	Polyephenylene sulfide	Bearing Grade Polyephenylene sulfide	Polyetherether ketone
1	1.50	1.41	1.44	1.20	1.24	1.29	1.28	1.51	1.35	1.43	1.31
2	8,000	12,400	10,500	10,500	10,200	11,000	16,500	17,000	13,500	10,900	16,000
3	435,000	460,000	500,000	320,000	390,000	340,000	500,000	800,000	500,000	540,000	735,000
4	15	20	5	100	30	30	80	3.0	15	5	20
5	12,000	18,000	14,000	13,000	15,000	15,500	20,000	30,000	21,000	10,500	15,000
6	445,000	490,000	360,000	350,000	400,000	345,000	500,000	900,000	575,000	535,000	700,000
7	7,600	8,000	8,500	9,200	9,000	9,000	15,000	-	9,000	-	8,000
8	16,000	15,000	15,250	11,500	13,000	13,400	22,000	32,000	21,500	15,500	20,000
9	350,000	420,000	400,000	300,000	375,000	280,000	480,000	625,000	430,000	342,000	500,000
10	M85(R115)	M93(R125)	M94	M75(R126)	M82(R128)	M80(R120)	M112(R125)	M114(R127)	M95(R125)	M84	M100(R126)
11	D83	D87	-	D80	D80	D80	D86	D86	D85	-	D85
12	0.7	0.5	0.4	1.5	1.3	2.5	0.5	1.0	0.6	1.4	1.0
13	0.19	0.20	0.19	-	-	-	0.42	-	0.40	0.2	0.40
14	8,300	2,800	6,000	-	-	-	1,875	-	3,000	8,750	8,500
15	60	60	35	-	-	>1,000	2,900	-	2,400	62	375
16	5.00×10^{-5}	3.30×10^{-5}	4.5×10^{-5}	3.90×10^{-5}	3.10×10^{-5}	3.10×10^{-5}	3.10×10^{-5}	1.10×10^{-5}	2.80×10^{-5}	3.30×10^{-5}	2.60×10^{-5}
17	244	240	180	290	340	405	400	410	250	240	400
18	N/A	N/A	N/A	293	374	428	419	419	N/A	N/A	N/A
19	347	491	491	N/A	N/A	N/A	N/A	N/A	540	536	644
20	180	210	210	250	300	300	340	340	425	430	480
21	-	2.0	1.9	1.3	1.8	2.4	0.85	1.56	2.00	2.10	1.75
22	400	385	-	400	425	360	830	770	540	500	480
23	$> 10^{13}$	$> 10^{13}$	$>10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$	$> 10^{13}$
24	3.1	-	3.6	3.17	3.14	3.44	3.15	3.7	3.0	-	3.30
25	0.010	-	.02	0.0009	0.0008	0.0017	0.0013	0.0015	0.0013	-	0.003
26	HB	HB	HB	HB	HB	V-0	V-0	V-0	V-0	V-0	V-0
27	0.2	0.07	0.06	0.2	0.3	0.37	0.25	0.18	0.01	0.01	0.10
28	1.0	0.9	0.47	0.4	0.6	1.10	1.25	0.90	0.03	0.09	0.50
29	L	A	A	A	A	A	A	A	A	A	A
30	U	L	L	U	U	L	U	U	L	L	L
31	A	A	A	A	A	A	A	A	A	A	A
32	U	U	U	U	U	A	U	U	A	A	A
33	A	A	A	U	U	L	U	U	A	A	A
34	A	A	A	L	L	A	L	L	A	A	A
35	A	A	A	U	U	U	U	U	A	A	A
36	A	A	A	U	L	L	A	A	A	A	A
37	L	U	U	U	U	U	U	U	A	A	A
38	A	A	A	A	A	L	A	A	A	A	A
39	A	A	A	A	A	A	A	A	A	A	A
40	L	L	L	L	L	L	A	A	L	L	L
41	$$	$$	$	$$	$$$	$$$	$$$	$$$	$$$$	$$$$	$$$$$
42	1	2	2	3	3	3	3	7	3	3	5

Chemical Resistance Key: A - Acceptable Service
L - Limited Service
U - Unacceptable

		Product Description	Units	Test Method ASTM	Ketron PEEK HPV Bearing Grade Polyetherether -ketone	Ketron PEEK CA30 30% Carbon Fiber Reinforced Polyetherether -ketone	30% Glass-reinforced Ketron™ PEEK Polyetherether -ketone	Torlon® 4203 Polyamide-imide	Torlon® 4301 Bearing grade Polyamide-imide
MECHANICAL	1	Specific Gravity, 73° F.	-	D792	1.44	1.41	1.65	1.41	1.45
	2	Tensile Strength, 73° F.	psi	D638	11,000	19,000	10,000	18,000	12,000
	3	Tensile Modulus of Elasticity, 73° F.	psi	D638	850,000	1,100,000	900,000	600,000	900,000
	4	Tensile Elongation (at break), 73° F.	%	D638	2	5.0	1.0	10.0	3.0
	5	Flexural Strength, 73° F.	psi	D790	27,500	25,750	14,000	24,000	23,000
	6	Flexural Modulus of Elasticity, 73° F.	psi	D790	1,100,000	1,250,000	1,000,000	600,000	800,000
	7	Shear Strength, 73° F.	psi	D732	10,000	-	14,000	16,000	16,400
	8	Compressive Strength, 10% Deformation, 73° F.	psi	D695	26,700	29,000	20,000	24,000	22,000
	9	Compressive Modulus of Elasticity, 73° F.	psi	D695	1,000,000	-	450,000	478,000	950,000
	10	Hardness, Rockwell, Scale as noted, 73° F.	-	D785	M85	M102	M103(R126)	E80(M120)	E70(M106)
	11	Hardness, Durometer, Shore "D" Scale, 73° F.	-	D2240	-	D93	D89	-	-
	12	Izod Impact (notched), 73° F.	ft.lbs./in.of notch	D256 Type "A"	.7	1.03	.6	2.0	0.8
	13	Coefficient of Friction (Dry vs Steel) Dynamic	-	PTM 55007	.21	0.20	-	0.35	0.20
	14	Limiting PV (with 4:1 safety factor applied)	ft.lbs./in.^{2} min	PTM 55007	20,000	25,000	-	12,500	22,500
	15	Wear Factor "k"	in^3-min/ft.lbs.hr	PTM55010	100	150	-	50	10
THERMAL	16	Coefficient of Linear Thermal Expansion (40°F tp 300°F)	in./in./°F	E-831 (TMA)	1.7 X 10^{-5}	1.00 X 10^{-5}	1.20 X 10^{-5}	1.70 X 10^{-5}	1.40 X 10^{-5}
	17	Heat Deflection Temperature 264 psi	°F	D648	383	518	450	532	534
	18	Tg-Glass Transition (amorphous)	°F	D3418	289	289	N/A	527	527
	19	Melting Point (crystalline) peak	°F	D3418	644	644	644	N/A	N/A
	20	Continuous Service Temperature in Air (Max.) (1)	°F	-	482	482	480	500	500
	21	Thermal Conductivity	BTU in./hr.ft.°F	F433	1.7	6.4	2.98	1.80	3.70
ELECTRICAL	22	Dielectric Strength, Short Term	Volts/mil	D149	-	32	500	580	-
	23	Surface Resistivity	ohm-cm	D257	<10^4	< 10^5	> 10^{13}	> 10^{16}	> 10^{13}
	24	Dielectric Constant, 10^6 HZ	-	D150	-	-	-	4.2	6.0
	25	Dissipitation Factor, 10^6 HZ	-	D150	-	-	-	0.026	0.037
	26	Flammability @ 3.1 mm (1/8 in.) (5)		UL94	V-0	V-0	V-0	V-0	V-0
CHEMICAL	27	Water Absorption Immersion, 24 Hours	% by wt.	D570 (2)	0.5	0.6	0.10	0.4	0.4
	28	Water Absorption Immersion, Saturation	% by wt.	D570 (2)	.30	.30	0.30	1.7	1.5
	29	Acids, Weak, 73° F., acetic acid, dilute hydrochloric or sulfuric acid			A	A	A	A	A
	30	Acids, Strong, 73° F., conc. hydrochloric or sulfuric acid			L	L	L	L	L
	31	Alkalies, Weak, 73° F., dilute ammonia or sodium hydroxide			A	A	A	L	L
	32	Alkalies, Strong, 73° F., strong ammonia or sodium hydroxide			A	A	A	U	U
	33	Hydrocarbons-Aromatic, 73° F., benzene, toluene			A	A	A	A	A
	34	Hydrocarbons-Aliphatic, 73° F., gasoline, hexane, grease			A	A	A	A	A
	35	Ketones, Esters, 73° F., acetone, methyl ethyl ketone			A	A	A	A	A
	36	Esters, 73° F., diethyl ether, tetrahydrofuran			A	A	A	A	A
	37	Chlorinated Solvents, 73° F., methylene chloride, chloroform			A	A	A	A	A
	38	Alcohols, 73° F., methanol, ethynol, anti-freeze			A	A	A	A	A
	39	Inorganic Salt Solutions, 73° F., sodium chloride, potassium cyanate			A	A	A	A	A
	40	Continuous Sunlight, 73° F.			A	A	L	L	A
OTHER	41	Relative Cost (4)			$$$$$	$$$$$	$$$$$	$$$$$	$$$$$
	42	Relative Machinability (1-10, 1 Easier to Machine)			7	7	7	5	5

Chemical Resistance Key: A - Acceptable Service
L - Limited Service
U - Unacceptable

EPP - Property Comparison - Cast

		Units	Test Method ASTM	GSM	GSM Blue	Endura	Endura XL	MC® 901 Blue	MC® 907 Natural
	Product Description			MoS Filled Type 6	Oil and MoS2 Filled Type 6	Solid Lubricant Filled Type 6	Preliminary & Quadrant Values	Monocast® Heat stabilized Type 6	Monocast® FDA Compliant Type 6
MECHANICAL	1 Specific Gravity, 73°F.	-	D792	1.16	1.15	1.15	1.11	1.15	1.15
	2 Tensile Strength, 73°F.	psi	D638	11,000	10,000	11,000	11,000	12,000	12,000
	3 Tensile Modulus of Elasticity, 73°F.	psi	D638	400,000	500,000	410,000	400,000	400,000	400,000
	4 Tensile Elongation (at break), 73°F.	%	D638	30	30	20	15	20	20
	5 Flexural Strength, 73°F.	psi	D790	16,000	15,000	16,000	13,000	16,000	16,000
	6 Flexural Modulus of Elasticity, 73°F.	psi	D790	500,000	500,000	475,000	360,000	500,000	500,000
	7 Shear Strength, 73°F.	psi	D732	10,500	-	10,000	-	11,000	11,000
	8 Compressive Strength, 10% Deformation, 73°F.	psi	D695	14,000	13,000	14,000	10,000	15,000	15,000
	9 Compressive Modulus of Elasticity, 73°F.	psi	D695	400,000	425,000	400,000	360,000	400,000	400,000
	10 Hardness, Rockwell, Scale as noted, 73°F.	-	D785	M80(R110)	M80(R117)	M80(R110)	M 65	M85(R115)	M85(R115)
	11 Hardness, Durometerl, Shore "D" Scale, 73°F.	-	D2240	D85	-	D85	-	D85	D85
	12 Izod Impact (notched), 73°F.	ft.lbs./in.of notch	D256 Type "A"	0.5	0.9	0.5	0.7	0.4	0.4
	13 Coefficient of Friction (Dry vs Steel) Dynamic	-	PTM 55007	0.20	0.18	0.18	0.14	0.20	0.20
	14 Limiting PV (with 4:1 safety factor applied)	ft.lbs./in.^{2}.min	PTM 55007	3,000	5,500	15,000	17,000	3,000	3,000
	15 Wear Factor "k"	in.^{3}-min/ft.lbs.hr	PTM 55010	90	65	9	26	100	100
THERMAL	16 Coefficient of Linear Thermal Expansion(40° to 300°F)	in./in./°F	E-831 (TMA)	3.5 X 10^{-5}	5.90 X 10^{-5}	5.00 X 10^{-5}	4.5 x 10^{-5}	3.50 X 10^{-5}	3.50 X 10^{-5}
	17 Heat Deflection Temperature 264 psi	°F	D648	200	200	200	243	200	200
	18 Tg-Glass Transition (amorphous)	°F	D3418	N/A	N/A	N/A	N/A	N/A	N/A
	19 Melting Point (crystalline) peak	°F	D3418	420	420	420	-	420	420
	20 Continuous Service Temperature in Air (Max.) (1)	°F	-	200	200	200	-	260	200
	21 Thermal Conductivity	BTU in./hr.ft.°F	F433	-	-	-	-	1.7	1.7
ELECTRICAL	22 Dielectric Strength, Short Term	Volts/mil	D149	400	-	400	-	500	500
	23 Volume Resistivity	ohm-cm	D257	>10^{13}	>10^{13}	>10^{13}	>10^{13}	>10^{13}	>10^{13}
	24 Dielectric Constant, 10^6 Hz	-	D150	3.7	-	-	-	3.7	3.7
	25 Dissipation Factor, 10^6 Hz	-	D150	-	-	-	-	-	-
	26 Flammability @ 3.1 mm (1/8 in.) (5)	-	UL94	HB	WB	HB	HB	HB	HB
CHEMICAL	27 Water Absorption Immersion, 24 hours	% by wt.	D570 (2)	0.3	0.22	0.25	0.25	0.3	0.3
	28 Water Absorption Immersion, Saturation	% by wt.	D570 (2)	7.0	6.0	7.0	7.0	7.0	7.0
	29 Acids, Weak, 73°F, acetic acid, dilute hydrochloric or sulfuric acid			L	L	L	L	L	L
	30 Acids, Strong, 73°F, Conc. hydrochloric or sulfuric acid			U	U	U	U	U	U
	31 Alkalies, Weak, 73°F, dilute ammonia or sodium hydroxide			L	L	L	L	L	L
	32 Alkalies, Strong, 73°F, strong ammonia or sodium hydroxide			U	U	U	U	U	U
	33 Hydrocarbons-Aromatic, 73°F., benzene, toluene			A	A	A	A	A	A
	34 Hydrocarbons-Aliphatic, 73°F., gasoline, hexane, grease			A	A	A	A	A	A
	35 Ketones, Esters, 73°F., acetone, methyl ethyl ketone			A	A	A	A	A	A
	36 Esters, 73°F., diethyl ether, tetrahydrofuran			A	A	A	A	A	A
	37 Chlorinated Solvents, 73°F., methylene chloride, chloroform			L	L	L	L	L	L
	38 Alcohols, 73°F., methanol, ethynol, anti-freeze			L	L	L	L	L	L
	39 Inorganic Salt Solutions, 73°F., sodium chloride, potassium cyanate			A	A	A	A	A	A
	40 Continuous Sunlight, 73°F.			L	L	L	L	L	L
OTHER	41 Relative Cost (4)			$	$	$$	-	$	$
	42 Relative Machinability (1-10, 1 Easier to Machine)			1	1	1	1	1	1

Chemical Resistance Key: **A - Acceptable Service**
L - Limited Service
U - Unacceptable

EPP - Property Comparison - CM

COMPRESSION MOLDED

		Product Description	Units	Test Method ASTM	Fluorosint® 207 PTFE Synthetic mica-filled PTFE	Fluorosint® 500 PTFE Synthetic mica-filled PTFE	Semitron® ESd 500HR Static Dissipative PTFE	Semitron® ESd 420 Static Dissipative Polyetherimide	Semitron® ESd 410C Static Dissipative Polyetherimide	Techtron® CM PPS Polyphenylene Sulfide
MECHANICAL	1	Specific Gravity, 73° F.	-	D792	2.30	2.32	2.30	1.45	1.41	1.35
	2	Tensile Strength, 73° F.	psi	D638	1,500	1,100	1,500	9,500	9,000	10,000
	3	Tensile Modulus of Elasticity, 73° F.	psi	D638	250,000	300,000	250,000	550,000	850,000	325,000
	4	Tensile Elongation (at break), 73° F.	%	D638	50	10	50	2	2	5.0
	5	Flexural Strength, 73° F.	psi	D790	2,000	2,200	2,200	14,500	12,000	18,000
	6	Flexural Modulus of Elasticity, 73° F.	psi	D790	350,000	500,000	350,000	525,000	850,000	370,000
	7	Shear Strength, 73° F.	psi	D732	1,700	2,100	1,700	7,300	9,000	-
	8	Compressive Strength, 10% Deformation, 73° F.	psi	D695	3,800	4,000	3,800	16,500	19,500	18,000
	9	Compressive Modulus of Elasticity, 73° F.	psi	D695	225,000	250,000	225,000	350,000	600,000	410,000
	10	Hardness, Rockwell, Scale as noted, 73° F.	-	D785	R50	R55	R50	M87	M115(R125)	M93(R125)
	11	Hardness, Durometer, Shore "D" Scale, 73° F.	-	D2240	D85	D70	D65	-	D85	D85
	12	Izod Impact (notched), 73° F.	ft.lbs./in.of notch	D256 Type "A"	1.0	0.9	1.0	1.0	0.8	0.6
	13	Coefficient of Friction (Dry vs Steel) Dynamic	-	PTM 55007	0.10	0.15	0.1	0.2	0.18	0.40
	14	Limiting PV (with 4:1 safety factor applied)	ft.lbs./in.^{2} min	PTM 55007	8,000	8,000	6,000	25,000	12,000	3,000
	15	Wear Factor "k"	in^3-min/ft.lbs.hr	PTM55010	30	600	30	50	125	>2,000
THERMAL	16	Coefficient of Linear Thermal Expansion (40°F tp 300°F)	in./in./°F	E-831 (TMA)	5.70 X 10^{-5}	2.5 X 10^{-5}	5.70 X 10^{-5}	3.20 X 10^{-5}	1.80 X 10^{-5}	2.80 X 10^{-5}
	17	Heat Deflection Temperature 264 psi	°F	D648	210	270	210	420	410	250
	18	Tg-Glass Transition (amorphous)	°F	D3418	N/A	N/A	N/A	205	428	N/A
	19	Melting Point (crystalline) peak	°F	D3418	621	621	621	N/A	N/A	540
	20	Continuous Service Temperature in Air (Max.) (1)	°F	-	500	500	500	340	338	425
	21	Thermal Conductivity	BTU in./hr.ft.°F	F433	-	5.30	-	1.6	2.45	2.00
ELECTRICAL	22	Dielectric Strength, Short Term	Volts/mil	D149	200	275	-	-	N/A	540
	23	Volume Resistivity	ohm-cm	D257	> 10^{12}	> 10^{13}	10^{10} - 10^{12}	10^{6} - 10^{9}	10^{4} - 10^{5}	10^{13}
	24	Dielectric Constant, 10^6 HZ	-	D150	2.65	2.85	-	-	3	3.0
	25	Dissipitation Factor, 10^6 HZ	-	D150	0.008	0.008	-	-	0.0013	0.0013
	26	Flammability @ 3.1 mm (1/8 in.) (5)		UL94	V-0	V-0	V-0	V-0	V-0	V-0
CHEMICAL	27	Water Absorption Immersion, 24 Hours	% by wt.	D570 (2)	0.3	0.10	0.03	0.8	0.3	0.02
	28	Water Absorption Immersion, Saturation	% by wt.	D570 (2)	2.0	3.0	2.0	2.6	1.1	0.03
	29	Acids, Weak, 73° F., acetic acid, dilute hydrochloric or sulfuric acid			A	A	A	A	A	A
	30	Acids, Strong, 73° F., conc. hydrochloric or sulfuric acid			A	A	A	U	L	L
	31	Alkalies, Weak, 73° F., dilute ammonia or sodium hydroxide			A	A	A	A	A	A
	32	Alkalies, Strong, 73° F., strong ammonia or sodium hydroxide			A	A	A	U	A	A
	33	Hydrocarbons-Aromatic, 73° F., benzene, toluene			A	A	A	U	A	A
	34	Hydrocarbons-Aliphatic, 73° F., gasoline, hexane, grease			A	A	A	L	A	A
	35	Ketones, Esters, 73° F., acetone, methyl ethyl ketone			A	A	A	U	A	A
	36	Esters, 73° F., diethyl ether, tetrahydrofuran			A	A	A	A	A	A
	37	Chlorinated Solvents, 73° F., methylene chloride, chloroform			A	A	A	U	A	A
	38	Alcohols, 73° F., methanol, ethynol, anti-freeze			A	A	A	A	A	A
	39	Inorganic Salt Solutions, 73° F., sodium chloride, potassium cyanate			A	A	A	A	A	A
	40	Continuous Sunlight, 73° F.			A	A	A	A	L	L
OTHER	41	Relative Cost (4)			$$$$	$$$$	$$$$$	$$$$$	$$$$	$$$
	42	Relative Machinability (1-10, 1 Easier to Machine)			1	2	1	1	1	6

Chemical Resistance Key: A - Acceptable Service
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EPP - Property Comparison - CM

Northern Plastics Ltd.

COMPRESSION MOLDED

	40% Glass-reinforced Ryton® PPS	Bearing Grade Ryton® PPS	Ketron® PEEK	30% Glass-reinforced Ketron® PEEK	30% Carbon-reinforced Ketron® PEEK	Torlon® 4501	Torlon® 4503	Torlon® 4540	Torlon® 5530	Semitron® ESd 520HR	Duratron® XP	Celazole® PBI
	Polyphenylene Sulfide	Polyphenylene Sulfide	Polyetherether-ketone	Polyetherether-ketone	Polyetherether-ketone	Bearing Grade Polyamideimide	Polyamide-imide	Polyamide -imide	Polyamide -imide	Static Dissipative Polyamideimide	High Purity Polyimide	Polybenzimizole
1	1.70	1.55	1.32	1.51	1.42	1.45	1.40	1.46	1.61	1.58	1.40	1.30
2	13,000	8,000	15,000	17,000	18,000	10,000	18,000	13,000	15,000	12,000	16,000	20,000
3	730,000	980,000	450,000	750,000	800,000	440,000	500,000	575,000	900,000	800,000	583,000	850,000
4	2.0	1	10.0	3.0	2.0	3.0	5.0	5.0	3.0	3%	4.0	3.0
5	23,000	10,000	25,000	28,000	30,000	20,000	24,000	24,000	20,000	20,000	20,000	32,000
6	1,000,000	820,000	600,000	1,000,000	1,300,000	650,000	600,000	680,000	900,000	850,000	600,000	950,000
7	-	-	-	-	11,000	-	-	-	-	12,600	-	-
8	24,000	15,000	17,000	19,000	25,000	16,000	18,000	17,000	27,000	30,000	24,000	50,000
9	1,300,000	800,000	450,000	500,000	550,000	359,000	350,000	350,000	600,000	600,000	450,000	900,000
10	M94(R125)	M93(R126)	M99(R126)	M103(R124)	M97(R125)	E70(M106)	E80(M119)	E66(M107)	E85(M125)	M108	M110	E105(M125)
11	D86	D86	D85	D86	D86	D90	D90	D90	D90	-	- -	D94
12	1.0	1.0	1.0	1.4	1.4	0.5	1.5	1.1	0.7	0.8	1.4	0.5
13	-	0.20	0.40	-	0.24	0.20	0.30	0.20	0.20	0.24	0.23	0.24
14	-	25,000	12,500	-	30,000	22,500	7,500	7,500	20,000	27,000	32,500	37,500
15	-	800	350	-	160	-	2.5	315	-	300	50	60
16	2.50×10^{-5}	1.70×10^{-5}	2.60×10^{-5}	1.40×10^{-5}	1.70×10^{-5}	2.00×10^{-5}	1.50×10^{-5}	2.10×10^{-5}	2.60×10^{-5}	2.35×10^{-5}	2.7×10^{-5}	1.30×10^{-5}
17	490	490	320	450	450	534	532	534	520	520	680	800(DMA)
18	N/A	N/A	N/A	N/A	N/A	527	527	527	527	527	613	750(DMA)
19	540	540	644	644	644	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	450	450	480	480	480	500	500	500	500	500	580	600
21	2.10	2.20	1.75	2.98	6.37	3.70	1.80	-	2.50	2.48	1.53	2.80
22	385	-	480	500	-	-	600	-	700	475	700	550
23	10^{13}	$>10^{5}$	$>10^{13}$	$>10^{13}$	$<10^{5}$	$>10^{13}$	$>10^{13}$	$>10^{13}$	$>10^{13}$	10^{10} - 10^{12}	$> 10^{13}$	$> 10^{13}$
24	-	-	3.30	-	-	6.0	4.2	-	6.3	5.76	3.41	3.2
25	-	-	0.003	-	-	0.042	0.031	-	0.050	0.0182	0.0038	0.003
26	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0	V-0
27	0.02	0.02	0.15	0.15	0.15	0.30	0.35	0.30	0.30	0.6	0.4	0.40
28	0.03	0.03	0.50	0.50	0.50	1.5	1.7	1.5	1.5	4.6	1.3	5.0
29	A	A	A	A	A	A	A	A	A	A	A	L
30	L	L	L	L	L	L	L	L	L	L	L	U
31	A	A	A	A	A	L	L	L	L	L	L	L
32	A	A	A	A	A	U	U	U	U	U	U	U
33	A	A	A	A	A	A	A	A	A	A	A	A
34	A	A	A	A	A	A	A	A	A	A	A	A
35	A	A	A	A	A	A	A	A	A	A	A	A
36	A	A	A	A	A	A	A	A	A	A	A	A
37	A	A	A	A	A	A	A	A	A	A	A	A
38	A	A	A	A	A	A	A	A	A	A	A	A
39	A	A	A	A	A	A	A	A	A	A	A	A
40	A	A	L	L	A	A	L	A	L	L	L	L
41	$$$$$	$$$$$	$$$$$	$$$$$	$$$$$	$$$$$	$$$$$	$$$$$	$$$$$	$$$$	$$$$$	$$$$$$
42	5	5	5	7	7	6	6	6	8	8	8	10

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