

General characteristics

Krefine®

Property	ASTM Method	Units	PEEK			PEI		PPS	POM	
			EKH-SS07	EKH-SS09	EKH-SS11	EIH-SSC	EIH-SS11	CDH-SS08	KOH-SS07	
Mechanical	Specific gravity	D-792	-	1.33	1.31	1.31	1.32	1.32	1.37	1.40
	Tensile strength	D-638	MPa	140	135	110	120	110	110	52 (ISO527)
	Tensile elongation		%	2.5	3.0	3.5	2.0	2.2	1.4	2.9 (ISO527)
	Flexural strength	D-790	MPa	200	190	170	140	130	140	82 (ISO178)
	Flexural modulus		MPa	10,000	8,000	6,000	6800	5500	9000	5900 (ISO178)
	Compressive strength	D695	MPa	180	172	155	135	125	-	-
	Compressive modulus		MPa	9,000	7,500	5,820	6300	5000	-	-
	Rockwell hardness	D785	M scale	125	125	125	105	105	105	80
	Izod impact strength	D-256	J/m	30	30	30	30	29	25	-
	Heat deflection temperature 1.82MPa	D-648	°C	305	305	280	215	215	260	137
Thermal	Coefficient of linear thermal expansion 30°C-140°C	D696	× 10 ⁻⁵ /°C	1.5	1.5	1.5	2.0	2.0	-	-
	Glass transition temperature	D3418	°C	143	143	143	215	215	90	-56
	Crystal melting temperature	D3418	°C	340	340	340	-	-	290	167
	Continuous service temperature	KCI method	°C	260	260	260	170	170	-	-
Electrocal	Dielectric strength	D149	kV/mm	-	2	5	-	7	-	-
	Surface resistance	ESD11.11	ohms	1.0E+06-9.9E+08	1.0E+08-9.9E+10	1.0E+10-9.9E+12	1.0E+06-9.9E+09	1.0E+10-9.9E+13	1.0E+07-9.9E+09	1.0E+06-9.9E+08
	Dielectric constant 1MHz	D150	-	7.9	6.6	5.3	9	6.8	-	-
	Dielectric loss tangent 1MHz		-	0.22	0.21	0.16	0.25	0.14	-	-
Flammability	UL94	-	V-0	V-0	V-0	V-0	V-0	V-0	HB	
Chemical resistance (1)	Water absorption immersion 24h	D570	% by wt.	0.2	0.2	0.2	0.4	0.4	0.05	0.22
	Water absorption immersion saturation	D570	% by wt.	0.3	0.3	0.3	0.6	0.6	0.05	0.25
	Weak acid; acetic acid, benzoic acid, hydrochloric acid, sulfuric acid			A	A	A	A	A	A	L
	Strong acid; conc.hydrochloric, nitric acid, sulfuric acid			L	L	L	L	L	L	U
	Weak alkalies; dilute ammonia, potassium hydroxide, sodium hydroxide			A	A	A	A	A	A	A
	Strong alkalies; strong ammonia, potassium hydroxide, sodium hydroxide			A	A	A	L	L	A	L
	Hydrocarbons-aromatic; benzen, toluene, naphthalene			A	A	A	L	L	A	L
	Hydrocarbons-aliphatic; heptane, gasoline, hexane, iso-octane, grease			A	A	A	A	A	A	A
	Aldehydes and Ketones; acetone, methyl ethyl ketone, N-methyl-2-pyrrolidone			A	A	A	L	L	A	U
	Esters; aliphatic esters, amyl acetate, dimethyl phthalate			A	A	A	L	L	A	A
	Chlorinated solvent; methylene chloride, chloroform			A	A	A	L	L	A	U
	Alcohols; methanol, ethanol, glycols, benzyl alcohol			A	A	A	A	A	A	L
	Inorganic salt solutions; sodium chloride, sodium carbonate, potassium cyanate			A	A	A	A	A	A	A
	Size of Stock-Shape (plate) : W (mm) * L (mm) * T (mm)				500*500*10 500*500*12.5 500*500*20			500*500*10 500*500*20	600*600*20	600*1200*10 600*1200*20

(1) Chemical resistance was evaluated at 23°C.

A-Acceptable service

L-Limited service

U-Unacceptable

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