



Krefine Company Ltd.

Krefine®

ESD Control Materials (Sheets)

General characteristics

Property	ASTM Method	Units	PEEK			PEI		PPS	POM
			EKH-SS07	EKH-SS09	EKH-SS11	EIH-SSC	EIH-SS11	CDH-SS08	KOH-SS07
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			10,000	8,000	6,000	6800	5500	9000	5900 (ISO178)
Compressive strength	D695	MPa	180	172	155	135	125	-	-
Compressive modulus			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
Coefficient of linear thermal expansion 30°C-140°C	D696	$\times 10^{-5}/^{\circ}\text{C}$	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	-	-
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
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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