



General Properties of SUMIKASUPER LCP

General Characteristic and Grade Lineup	Item		Test method	Unit	E4008	E4006L	E4205L
Physical Properties	Filler				Glass fiber	Glass fiber	Glass filler
All LCP Series E5000 Series E4000 Series E6000 Series E6000HF Series E7000 Series	Standard molding temperature			℃	380	380	380
	Specific gravity		ASTM D792		1.70	1.60	1.18
	Water absorption coefficient		ASTM D570	%	0.02	0.02	0.02
	Mold shrinkage rate	MD	Sumitomo Chemical method	%	0.10	0.11	0.66
		TD		%	1.32	0.78	1.67
Injection Molding / Fabricating	Tensile strength		ASTM D638	MPa	150	182	82
	Elongation at break			%	5.0	5.6	5.0
Applications	Flexural strength	23 ℃	ASTM D790	MPa	139	155	85
		200 ℃		MPa	39	47	-
	Flexural modulus	23 ℃	ASTM D790	MPa	12300	11900	5600
		200 ℃		MPa	6300	5780	-
	Izod impact strength	6.4t notched	ASTM D256	J/m	108	137	-
		6.4t without notched		J/m	520	461	309
	Shear strength		ASTM D732	MPa	52	58	-
	Poisson's ratio		ASTM D785		0.49	0.48	-
	Rockwell hardness		ASTM D785	R scale	91	91	-
	DTUL		ASTM D648	℃	313	310	305
	Soldering resistance		Sumitomo Chemical method	℃	330	335	-
	Linear expansion coefficient (150 ℃)	MD	Sumitomo Chemical method	× 10 ⁻⁵ /%	1.4	0.2	-
		TD		× 10 ⁻⁵ /%	6.2	8.1	-
	Limiting oxygen index		JIS K7201		48	44	
	Flame retardancy	flame class	UL94	mmt	V-0	V-0	V-0
		color			NC,BK	NC,BK	BK
		thickness			0.3	0.3	0.3
	Thermal conductivity		JIS R2618	W/mk	0.57	0.53	0.41
				kcal/mhr℃	0.49	0.46	0.35
	Dielectric constant	(10 ³ Hz)	ASTM D150		4.5	4.4	-
(10 ⁶ Hz)		3.9			3.7	2.9	
(10 ⁹ Hz)		-			-	-	
Dielectric tangent	(10 ³ Hz)	0.018			0.018	-	
	(10 ⁶ Hz)	0.034			0.035	0.013	
	(10 ⁹ Hz)	-			-	-	
Specific volume resistance		ASTM D257	Ωm	10 ¹³	10 ¹³	10 ¹³	
Arc resistance		ASTM D495	sec	130	130	-	
Tracking resistance		IEC method	V	145	185	-	

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