



Properties	Test Method	Standard Dk			High Dk		Low Df
		MC24M	MC12M	MC8M	MC12TM	MC8TM	MC25L
<b>Dielectric Thickness, <math>\mu\text{m}</math></b>	Nominal	22	12	8	12	8	25
<b>Cp @ 1 MHz, nF/in<sup>2</sup> (pF/cm<sup>2</sup>)</b>	Nominal	<b>1.2 (180)</b>	<b>2.0 (320)</b>	<b>3.1 (480)</b>	<b>4.2 (650)</b>	<b>7.0 (1100)</b>	<b>1.0 (130)</b>
<b>Dk (Dielectric Constant) @ 1 MHz/1 GHz</b>	Mitsui Method	4.4/3.5	4.4/3.5	4.4/3.5	10.0/9.5	10.5/10.0	3.9/3.8
<b>Df (Loss Tangent) @1 MHz/1 GHz</b>	Mitsui Method	0.015/0.016	0.015/0.020	0.016/0.021	0.015/0.020	0.020/0.021	0.004/0.005
<b>Peel Strength, kN/m 1 oz Cu</b>	IPC TM-650 2.4.8C*	1.5	1.5	1.5	0.9	0.9	1.0
<b>Breakdown Voltage, V</b>	IPC TM-650 2.5.6.2A*	$\geq 5000$	4000	3000	2500	1500	$\geq 5000$
<b>Tensile Strength, MPa (kpsi)</b>	ASTM D-882	219 (31.8)	194 (28.2)	126 (18.3)	153 (22.2)	127 (18.4)	227 (32.9)
<b>Elongation, %</b>	ASTM D-882A	36.0	13.5	8.5	31.4	14	47.0
<b>CTE, ppm/°C, x-y, TMA</b>	IPC TM-650 2.4.24.5*	24	23	32	28	22	30
<b>Tg, °C, DMA</b>	IPC TM-650 2.4.24.4*	183	187	188	189	191	170
<b>Hi-Pot test (each panel)</b>	IPC TM-650 2.5.7.2*	PASS (500V)	PASS (500V)	PASS (500V)	PASS (500V)	PASS (250V)	PASS (500V)
<b>Thermal Stress (10 Sec Float @288°C), Times</b>	Mitsui Method	>10	>10	>10	>10	>10	>10
<b>Moisture Absorption %</b>	TM-650 2.6.2.1*	1.3	1.3	0.5	0.8	0.5	0.3
<b>THB, 85°C/85% RH/dc bias</b>	Mitsui Method	PASS (50V)	PASS (50V)	PASS (35V)	PASS (50V)	PASS (35V)	PASS (50V)
<b>HAST, 130°C/85% RH/dc bias</b>	Mitsui Method w/GEA-700G	PASS (50V)	PASS (50V)	PASS (50V)	PASS (50V)	PASS (50V)	PASS (50V)
<b>Flammability/Temp Rating</b>	UL 94	V0 130°C	V0 130°C	V0 130°C	V0 130°C	V0 130°C	V0 130°C
<b>PWB Processing</b>	—	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides

**Note:** This chart provides typical values for *FaradFlex*® products. \*Indicates some modifications to test method.