

Properties	Test Method	High Dk/Low Df		High Dk		
		MC12LD	MC12ST	MC8TM	MC8T	MC3TB
Dielectric Thickness, $\mu\text{m}$	Nominal	12	12	8	8	3
Cp @ 1 kHz/1 MHz, nF/in <sup>2</sup>	Nominal	- /4.3	10.9/10.5	7.0/6.5	24.2/21.9	40.0/38.5
Dk (Dielectric Constant) @ 1 kHz/1 MHz	Mitsui Method	7.3@1MHz 7.9@1GHz	23.1/22.8	10/10.5	30.0/24.0	22.4/21.7
Df (Loss Tangent) @1 kHz/1 MHz	Mitsui Method	0.002@1MHz 0.0017@1GHz	0.006/0.005	0.020/0.020	0.020/0.025	0.010/0.008
Peel Strength, kN/m 0.5 oz Cu	IPC TM-650 2.4.8C*	0.70	0.70	0.77	0.70	0.70
Breakdown Voltage, V	IPC TM-650 2.5.6.2A*	$\geq 300\text{V}$	$\geq 150\text{V}$	$\geq 1500\text{V}$	$\geq 200\text{V}$	$\geq 50\text{V}$
Tensile Strength, MPa (kpsi)	ASTM D-882	N/A	NA	127 (18.4)	NA	NA
Elongation, %	ASTM D-882A	N/A	NA	14	NA	NA
CTE, ppm/°C, x-y, TMA	IPC TM-650 2.4.24.5*	55	32 (@1) 97 (@2)	22	17 (@1) 42 (@2)	32 (@1) 121 (@2)
Tg, °C, DMA	IPC TM-650 2.4.24.4*	215	160	191	191	136
Hi-Pot test (Sampling/Lot)	IPC TM-650 2.5.7.2*	N/A	PASS (50V)	PASS (100V)	PASS (50V)	PASS (20V)
Thermal Stress (10 Sec Float), Times	Mitsui Method	>10 (288°C)	>10 (288°C)	>10 (288°C)	>10 (288°C)	>10 (300°C)
Moisture Absorption %	TM-650 2.6.2.1*	0.37	0.14	0.5	0.4	0.2
THB, 85°C/85% RH/dc bias	Mitsui Method	PASS (10V)	PASS (3.7V)	PASS (35V)	PASS (3.7V)	PASS (3.7V)
HAST, 130°C/85% RH/dc bias	Mitsui Method w/GEA-700G	N/A	PASS (2.8V)	PASS (50V)	PASS (2.8V)	PASS (2.8V)
Flammability/Temp Rating	UL 94	N/A	NA	V0 130°C	V0 130°C	NA
PWB Processing	—	Sequential	Sequential	Both sides	Sequential	Sequential

\*Common copper weights: 0.5 oz, 1.0 oz, 2.0 oz

Note: This chart provides typical values for FaradFlex® products. \*Indicates some modifications to test method. For a full list of our products please contact us.