

R-5725 and R-5620

Megtron 4 Functionalized PPO / Epoxy Blend

Megtron 4 is our newest generation material designed for Low Dk and High Tg Applications. **Megtron 4** was designed specifically for network Equipment, Routers and Measuring Instruments. The main attributes of Megtron 4 are : Low dielectric constant and dielectric dissipation factor (Dk =3.8 and Df =.005) and High Heat Resistance (Td = 362'C)

R-5725 Laminate Constructions					
Thickness (inches)	Thickness (mm)	Laminate Construction	Typical RC %	Dk (1 Ghz)	Df (1 Ghz)
.0020	0.05	1-1067	66	3.6	.005
.0025	0.06	1-1080	59	3.8	.005
.0030	0.08	1-1080	65	3.6	.005
.0034	0.09	1-1078	68	3.5	.005
.0035	0.09	2-106	69	3.5	.005
.0035	0.09	1-3313	51	4.0	.005
.0040	0.10	1-3313	57	3.8	.005
.0040	0.10	2-1067	66	3.6	.005
.0045	0.11	1-2116	48	4.1	.005
.0045	0.11	2-1080	56	3.9	.005
.0047	0.12	2-1080	57	3.9	.005
.0050	0.13	1-2116	56	3.9	.005
.0051	0.13	2-1080	60	3.7	.005
.0051	0.13	2-1078	59	3.8	.005
.0055	0.14	2-1080	63	3.7	.005
.0060	0.15	3-1080	65	3.6	.005
.0060	0.15	1-1504	49	4.1	.005
.0060	0.15	2-1078	65	3.6	.005
.0070	0.18	2-3313	52	4.1	.005
.0070	0.18	3-1067	70	3.5	.005
.0075	0.19	1-7628	45	4.3	.005
.0080	0.20	2-3313	57	3.8	.005
.0080	0.20	2-2116	47	4.1	.005
.0100	0.25	2-2116	56	3.9	.005
.0120	0.30	2-1504	49	4.1	.005
.0150	0.38	2-7628	45	4.2	.005
.0180	0.46	2-7628/1-3313	45	4.2	.005
.0200	0.51	2-7628/2-1080	49	4.1	.005
.0220	0.56	3-7628	44	4.2	.005
.0240	0.61	3-7628	48	4.1	.005
.0260	0.66	3-7628/1-2116	45	4.2	.005
.0280	0.71	4-7628	42	4.3	.005
.0310	0.79	4-7628	47	4.2	.005
.0400	1.00	5-7628	47	4.1	.005
.0470	1.20	6-7628	47	4.1	.005
.0470	1.20	12-3313	57	3.8	.005

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Prepreg Constructions					
Glass Style	Resin Content (%)	Thickness (um)	Thickness (inches)	Typical Dk (1 GHz)	Typical Df (1 GHz)
106	72	51	.0020	3.4	.005
106	75	58	.0023	3.3	.005
1067	66	52	.0020	3.6	.005
1067	70	60	.0024	3.4	.005
1067	74	70	.0028	3.3	.005
1080	65	78	.0031	3.6	.005
1080	69	90	.0035	3.5	.005
1080	73	105	.0041	3.4	.005
1078	64	75	.0030	3.6	.005
1078	69	89	.0035	3.5	.005
3313	57	105	.0041	3.8	.005
3313	63	126	.0050	3.7	.005
2116	53	119	.0047	4.0	.005
2116	56	127	.0050	3.9	.005
1504	51	160	.0063	4.0	.005
1501	51	178	.0070	4.0	.005
7628	44	185	.0073	4.2	.005

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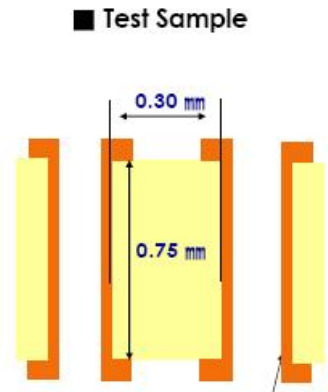
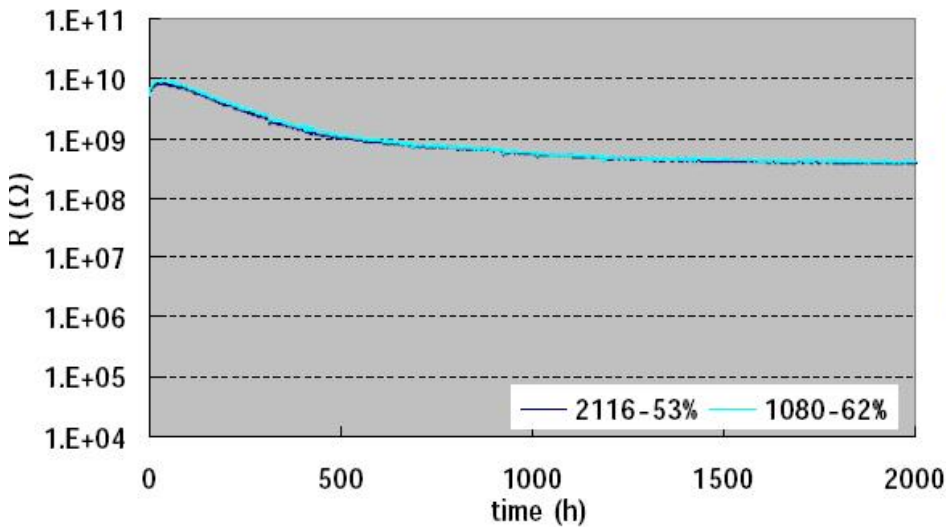
R-5725 Laminate Specifications*					
Property		Units	Test Method	Condition	Value
THERMAL	Glass Transition Temp	°C	DMA DSC	As received	215 176
	CTE (α_1) Z-axis	ppm/°C	IPC-TM-650 2.4.41 (TMA)	As received	35
	Thermal Decomp Temp	°C	TGA	As received	360
	Time to Delam (T288)	min	IPC TM-650 2.4.24.1	As received	30
ELECTRICAL	Electrical Strength	Volts/mil	IPC TM-650 2.5.6.2	D-48/50+D-0.5/23	TBA
	Volume Resistivity	M Ω -cm	IPC TM-650 2.5.17.1	C-96/35/90 E-24/125	1x10 ⁹
	Surface Resistivity	M Ω	IPC TM-650 2.5.17.1	C-95/35/90 E-24/125	1x10 ⁸
	Dielectric Constant (Dk)	@1 GHz	IPC TM-650 2.5.5.5	As Received	3.8
	Dissipation Factor (Df)	@ 1 GHz	IPC TM-650 2.5.5.5	As Received	.005
PHYSICAL	Moisure Absorbtion	%	IPC TM-650 2.6.2.1	D-24/23	0.14
	Flexural Strength	M/Pa	--	As Received	TBA
	Peel Strength (35 μ m)	KgN/m / lbs/in	IPC TM-650 2.4.8	As Received	1.2 / 6.8
	Flammability		IPC TM-650 2.4.39 UL94	As Received E-168/70	94V-0

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CAF Resistance (HAST)

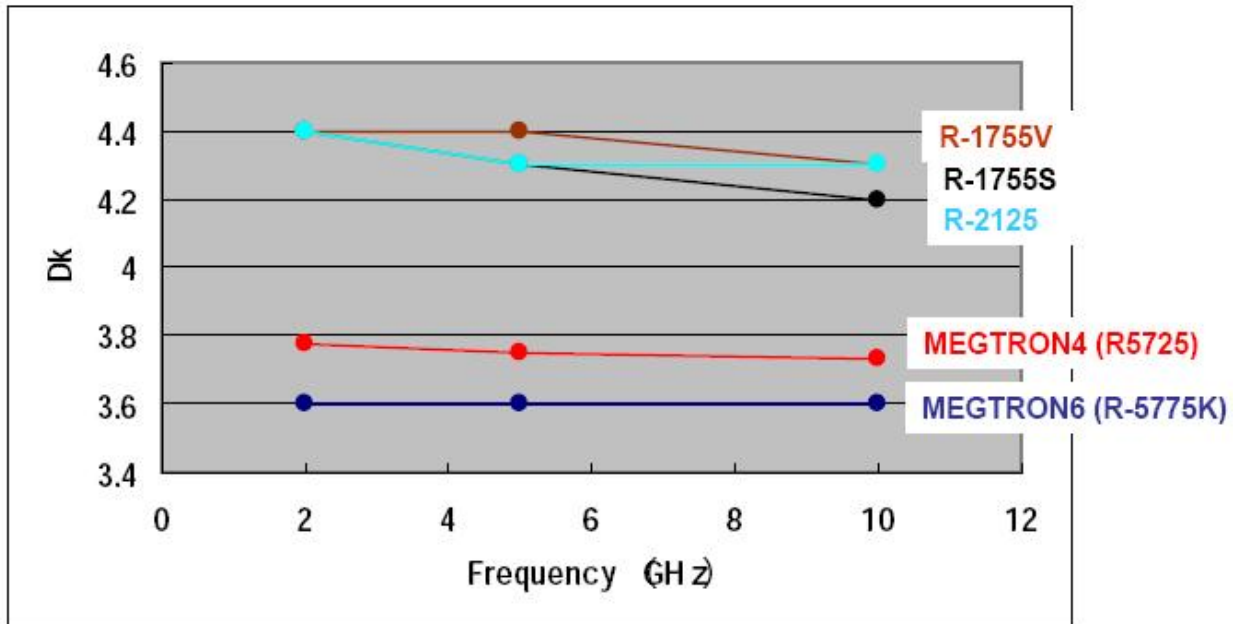
Test Condition : 85°C85% DC50V



Construction
 GC : #2116 8ply
 #1080 10ply

Through-hole
 0.30mmΦ

Dielectric Properties – DK Data



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