

R-5775K and R-5670K

Megtron 6 PPE Blend Resin System

Megtron 6 is a new generation, advanced material designed for high frequency (Low Dk, low Df) circuit board applications. **Megtron 6's** electrical properties are competitive with PTFE-based materials, but with improved processability. **Megtron 6** provides designers significant benefits in system performance for telecommunications applications, routers/switching equipment, high-speed transfer and computing applications. .

R-5775K Laminate Constructions					
Thickness (inches)	Thickness (mm)	Typical RC (%)	Laminate Construction	Dk (1Ghz)	Df (1Ghz)
.0020	.051	65	1-1035	3.46	.002
.0025	.063	57	1-1080	3.65	.002
*.0025	*.064	57	1-1078	3.65	.002
.0029	.073	63	1-1078	3.49	.002
.0039	.099	54	1-3313	3.71	.002
.0039	.099	65	2-1035	3.46	.002
*.0050	*.127	57	2-1078	3.65	.002
.0050	.126	54	1-2116	3.71	.002
.0049	.124	57	2-1080	3.65	.002
*.0058	*.148	63	2-1078	3.49	.002
.0057	.146	63	2-1080	3.49	.002
.0078	.198	54	2-3313	3.71	.002
.0096	.245	54	2-2116	3.71	.002
.0115	.293	54	3-3313	3.71	.002
.0150	.390	54	4-3313	3.71	.002
.0194	.494	54	4-2116	3.71	.002
*.0210	*.530	42	3-7628	4.07	.002
*.0240	*.610	54	5-2116	3.71	.002
*.0280	*.710	42	4-7628	4.07	.002
.0289	.733	54	6-2116	3.71	.002
*.0350	*.890	42	5-7628	4.07	.002

Prepreg Constructions						
Glass Style	Resin Content (%)	Thickness (mm)	RF (%)	VC (%)	Scale Flow Thick (inches)	Dk (1GHz)
1027	75.0 +/- 5.0	tba	tba	tba	tba	3.28
1035	70.0 +/- 5.0	0.04	10+/-7	7.0+/-1.4	60 um	3.35
1035	73.0 +/- 5.0	0.04	20+/-8	7.5+/-2.0	68 um	3.29
1035	75.0 +/- 5.0	0.04	8-24	7.5+/-2.0	65 um	3.28
1080	63.0 +/- 5.0	0.06	10-30	5.5 +/-2.0	Tba	3.49
1078	68.0 +/- 5.0	tba	tba	tba	tba	3.41
1078	72.0 +/- 5.0	0.06	14-34	5.5 +/-2.0	Tba	3.31
1078	75.0 +/- 3.0	0.06	12+/-7	6.3+/-1.2	75 um	3.28
3313	54.0 +/- 3.0	0.08	11+/-7	5.0+/-1.5	100 um	3.71
2116	54.0 +/- 3.0	0.10	13+/-7	4.5+/-1.5	125 um	3.71
2116	56.0 +/- 3.0	0.10	9-23	4.2+/-1.5	132 um	3.65

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All Panasonic materials are manufactured to the highest standards of quality and consistency available in the market. Surface classification per IPC 4101B/91 is Class "C" and thickness is Class "C". **Megtron 6** is manufactured with 100% CAF resistant Nittobo glass

Laminate thicknesses published measure the laminate base material without the metal cladding.
Megtron 6 is available with H-VLP, VLP and standard STD copper foils.

R-5775K Laminate Specifications*					
	Property	Units	Test Method	Condition	Value
THERMAL	Glass Transition Temp	°C	DMA	As received	210
	Glass Transition Temp	°C	DSC	As received	185
	Thermal Decomp Temperature	°C	TGA	As received	410
	CTE (α_1) Z-axis	ppm/°C	IPC-TM-650 2.4.41 (TMA)	< Tg	45
	Time to Delam (T260 with Cu)	Min	IPC TM-650 2.4.24.1	As received	>120
	Time to Delam (T288 with Cu)	min	IPC TM-650 2.4.24.1	As received	>120
ELECTRICAL	Electrical Strength	Volts/mil	IPC TM-650 2.5.6.2	D-48/50+D-0.5/23	1000-1500
	Volume Resistivity	MΩ-cm	IPC TM-650 2.5.17.1	C-96/35/90 E-24/125	1 x 10 ⁹
	Surface Resistivity	MΩ	IPC TM-650 2.5.17.1	C-95/35/90 E-24/125	1 x 10 ⁸
	Dielectric Constant (Dk)	@2 GHz	IPC TM-650 2.5.5.5	As Received	3.6
	Dissipation Factor (Df)	@ 2 GHz	IPC TM-650 2.5.5.5	As Received	.002
PHYSICAL	Moisture Absorption	%	IPC TM-650 2.6.2.1	D-24/23	0.14
	Flexural Strength	M/Pa	--	As Received	420
	Peel Strength S-VLP (35 µm)	KgN/m	IPC TM-650 2.4.8	As Received	0.8
	Peel Strength Std-Cu (35 µm)	KgN/m	IPC TM-650 2.4.8	As Received	1.2
	Flammability		IPC TM-650 2.4.39 UL94	As Received E-168/70	94V-0

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Test Sample .006" (2-1080 @63%RC)		Dielectric Constant (Dk)	Dissipation Factor (Df)	Test Method Used
FREQUENCY	2 GHz	3.40	0.002	IPC TM 650 2.5.5.5
	4 GHz	3.40	0.003	
	6 GHz	3.40	0.003	
	8 GHz	3.40	0.004	
	10 GHz	3.40	0.004	

Dk/Df (IPC TM-650 2.5.5.5)

