

## R-5715 and R-5610G Megtron® PPO/Epoxy Resin System



**Megtron®** is a high speed, high performance PPO/Epoxy resin system. Megtron® has a low dielectric constant (Dk) and a low dissipation factor (Df) that provides designers with significant benefits in system performance for telecommunication applications, routers/switching equipment, high-speed transfer and computing applications. All Matsushita materials are manufactured to the highest standards of quality and consistency available in the market. Surface classification per IPC 4101A is Class "C" (5 point max) and thickness is Class "C". Both the R-5715 laminate and the R-5610G Prepreg and utilize CAF resistant glass.

R-5715 Laminate Properties				
Thickness (inches)	Thickness (mm)	Thickness Tolerance (inches)	Laminate Construction	Dielectric Constant @ 1MHz
.0022	.05	.0005	1-106	3.8
.0027	.06	.0005	1-1080	3.8
.0040	.10	.0005	1-3313	3.9
.0050	.13	.0007	106/3313	3.8
.0060	.15	.0007	1080/3313	3.9
.0070	.18	.0009	2-3313	3.9
.0080	.20	.0009	3313/2116	3.9
.0100	.25	.0009	2-2116	3.9
.0120	0.30	.0009	2-1080/7628	3.9
.0140	0.36	.0015	2-7628	4.2
.0180	0.45	.0015	3313/2-7628	4.1
.0210	0.53	.0019	3-7628	4.2
.0280	0.70	.0019	4-7628	4.2
.0310	0.80	.0019	1080/4-7328	4.2
.0350	0.90	.0029	5-7628	4.2
.0470	1.20	.0029	2116/6-7628	4.2
.0590	1.60	.0029	8-7628	4.2

Laminate thicknesses published measure the laminate base material without the metal cladding. Matsushita utilizes low profile HTE copper foil on all laminates. Both standard HTE and Reverse Treat Copper Foils are available.

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R-5715 Laminate Specifications					
	Property	Units	Test Method	Condition	Value
THERMAL	Glass Transition Temp	°C	DMA	As received	180
	CTE ( $\alpha_1$ ) Z-axis	ppm/°C	IPC-TM-650 2.4.41 (TMA)	As received	55-65
	Time to Delam (T260)	min	IPC TM-650 2.4.24.1	As received	>35
ELECTRICAL	Electrical Strength	Volts/mil	IPC TM-650 2.5.6.2	D-48/50+D-0.5/23	1000-1200
	Volume Resistivity	M $\Omega$ -cm	IPC TM-650 2.5.17.1	C-96/35/90 E-24/125	>10 <sup>6</sup> >10 <sup>3</sup>
	Surface Resistivity	M $\Omega$	IPC TM-650 2.5.17.1	C-95/35/90 E-24/125	>10 <sup>4</sup> >10 <sup>3</sup>
	Dielectric Constant (Dk)	@1 MHz @1 GHz	IPC TM-650 2.5.5.3	C-24/23/50	3.9 3.7
	Dissipation Factor (Df)	@1 MHz @1 GHz	IPC TM-650 2.5.5.3	C-40/23/50	.010 .012
PHYSICAL	Moisture Absorbtion	%	IPC TM-650 2.6.2.1	D-24/23	0.05
	Flexural Strength	Kg/mm <sup>2</sup>	--	As Received	45-55
	Peel Strength 1 oz (35 $\mu$ m)	Lb/in.	IPC TM-650 2.4.8	As Received 10 sec.@550°F	8.0 8.0
	Flammability		IPC TM-650 2.4.39 UL94	C-48/23/50	V-0

R-5610G Prepreg Specifications				
Glass Style	Resin Flow (%)	Volatile Content (%)	Resin Content (%)	Gel Time (Sec)
106	49 - 56	0.5 max	75.0 +/- 3.0	120 +/- 35
1080	24 - 36	0.5 max	63.0 +/- 3.0	120 +/- 35
3313	25 - 35	0.5 max	55.0 +/- 3.0	120 +/- 35
2116	25 - 35	0.5 max	54.0 +/- 3.0	120 +/- 35
7628	20 - 30	0.5 max	42.0 +/- 3.0	120 +/- 35

For more information about these products, contact our Customer Service or Technical Service Group at one of the following telephone numbers:

**Canada and East Coast USA (800) 668-5447**  
**West Coast USA (866) 429-0859**

Visit our website [www.matrixusa.us](http://www.matrixusa.us)

\* All information is for reference only , rev. 013106