

**R-2125 and R-2120**

High Heat Resistance, Low Df Laminate System

The advancement of electronic devices is spreading rapidly on a global scale. The key requirements for compact and thinner devices include high functionality and superior heat resistance. Our new R2125 laminate system has extremely high heat resistance and was engineered to reduce Z-axis expansion during heat cycling encountered in multiple-pass solder operations. R2125 can withstand the increased thermal stress of repeated lead-free assembly cycles. (Meets IPC 4101B /97 /98 /99 /101 /129 C C)

R-2125 Laminate Constructions					
Thickness (inches)	Thickness (mm)	Tolerance Thick (inches)	Laminate Construction	Typical Resin Content	Dielectric Constant @ 1GHz
.0020	0.05	+/- .00079	1-1067	66%	3.99
.0024	0.06	+/- .00079	1-1080	59%	4.14
.0028	0.07	+/- .00180	1-1080	64%	4.03
.0031	0.08	+/- .00180	1-1080	69%	3.92
.0031	0.08	+/- .00180	1-3313	48%	4.39
.0039	0.10	+/- .00180	1-2116	46%	4.43
.0039	0.10	+/- .00180	2-1067	66%	3.99
.0039	0.10	+/- .00180	1-1080	73%	3.83
.0051	0.13	+/- .00157	1-1504	44%	4.48
.0059	0.15	+/- .00157	1-1501	46%	4.43
.0079	0.20	+/- .00157	2-2116	46%	4.43
.0098	0.25	+/- .00197	2-1504	44%	4.48
.0118	0.30	+/- .00197	2-1501	46%	4.43
.0157	0.40	+/- .00236	2-7628	49%	4.36
.0197	0.50	+/- .00276	2-7628, 1-2116	48%	4.39
.0236	0.60	+/- .00315	3-7628	49%	4.36
.0315	0.80	+/- .00354	4-7628	47%	4.41
.0394	1.00	+/- .00433	5-7628	47%	4.41
.0472	1.20	+/- .00433	6-7628	47%	4.41
.0630	1.60	+/- .00512	8-7628	47%	4.41

**R-2125 and R-2120**

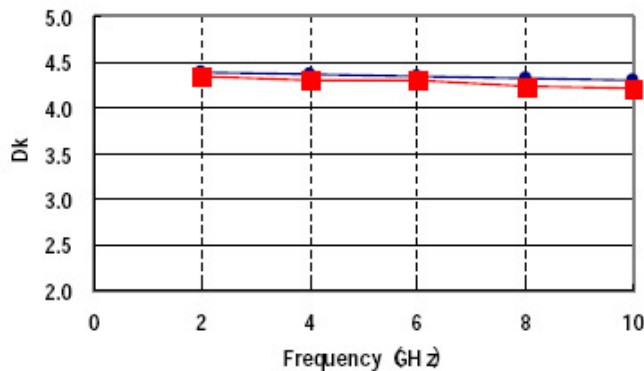
Multifunctional Epoxy Resin System

R-2120 Prepreg Specifications				
Glass Style	Dk (@ 1 GHz)	Typical Thick (mm)	Typical Resin Content %	Gel Time (Sec)
1067	3.9	0.056	70 +/- 5.0	tba
1067	3.8	0.066	74 +/- 5.0	tba
1080	4.0	0.074	65 +/- 5.0	tba
1080	3.8	0.099	73 +/- 5.0	tba
1078	4.0	0.073	64 +/- 5.0	tba
3313	4.2	0.103	57 +/- 5.0	tba
2116	4.2	0.126	56 +/- 5.0	tba
2116	4.1	0.138	59 +/- 5.0	tba

**R-2125 and R-2120**  
Multifunctional Epoxy Resin System

R2125 Engineering Specifications					
Property		Units	Test Method	Condition	Value
THERMAL	Glass Transition Temp	°C	DSC	As received	170
			TMA		160
			DMA		190
	Thermal Decomposition Temp	°C	TGA	As received	380
	CTE ( $\alpha_1$ ) Z-axis	ppm/°C	IPC-TM-650 2.4.41 (TMA)	As received	33
	Time to Delam (T260)	min	IPC TM-650 2.4.24.1	As received	>120
Time to Delam (T288)	min	IPC TM-650 2.4.24.1	As received	50	
ELECTRICAL	Volume Resistivity	M $\Omega$ -cm	IPC TM-650 2.5.17.1	C-95/35/90	1x10 <sup>9</sup>
	Surface Resistivity	M $\Omega$	IPC TM-650 2.5.17.1	C-95/35/90	1x10 <sup>8</sup>
	Dielectric Constant (Dk)	@ 1 GHz	IPC TM-650 2.5.5.3	C-24/23/50	4.4
	Dissipation Factor (Df)	@ 1 GHz	IPC TM-650 2.5.5.3	C-40/23/50	.010
PHYSICAL	Moisture Absorption	%	IPC TM-650 2.6.2.1	D-24/23	0.08
	Peel Strength 1 oz (35 $\mu$ m)	kN/m	IPC TM-650 2.4.8	As Received	1.30
	Peel Strength H oz (18 $\mu$ m)				1.10
	Flammability	UL94	IPC TM-650 2.4.39	C-48/23/50	V-0

**Dielectric Constant Dk**



**Dielectric Factor Df**

