

isola

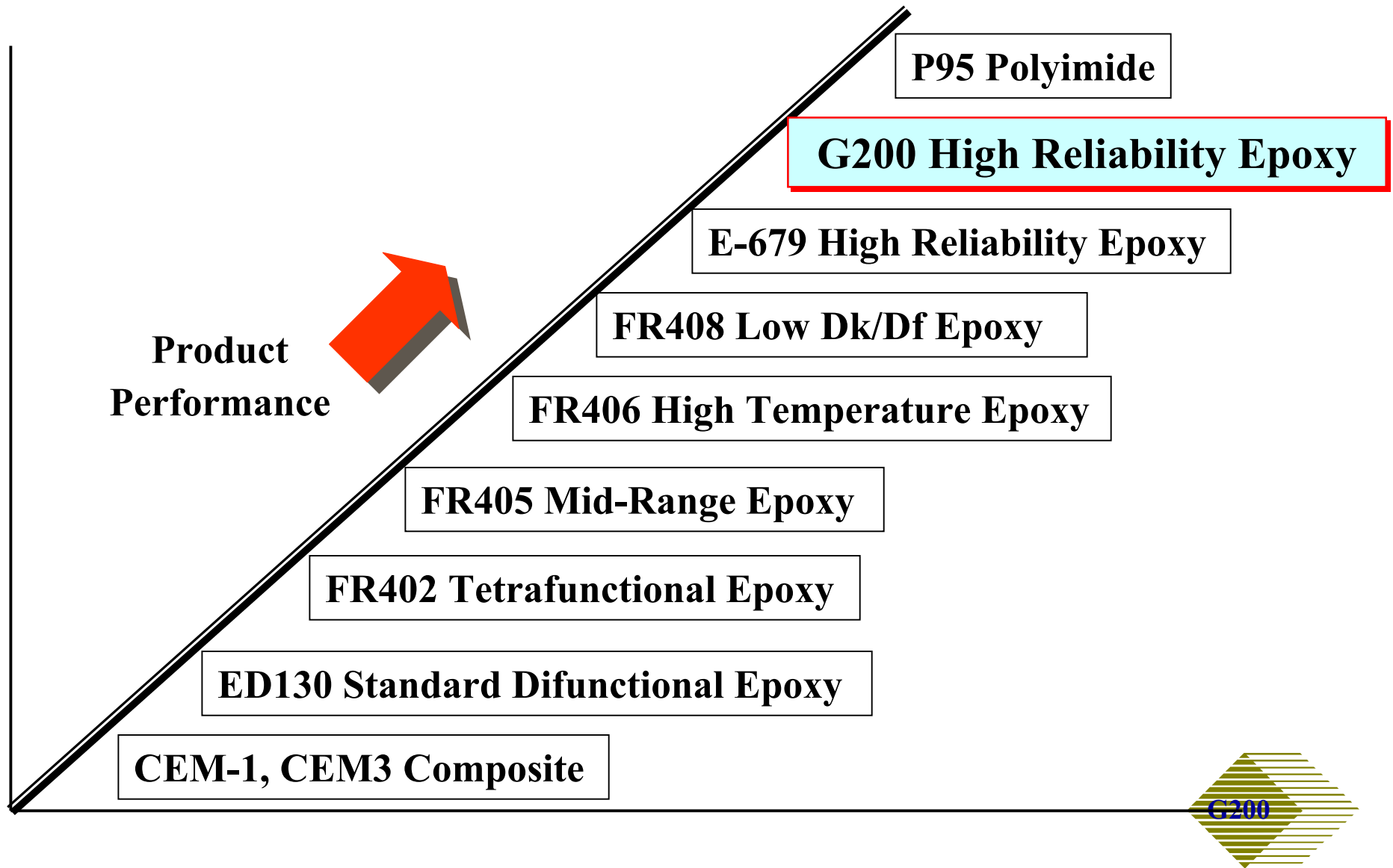


G200
Electronic Packaging Laminate

*The Solution for High Density
BGA and PWB*

Product Offering

isola



■ *Features*

- **Higher Tg 175°C~185°C(DSC)**
- **Lower Z-axis CTE than Standard Epoxies**
- **Low Moisture Pick-up**
- **Lower Dk & Df than Standard Epoxies.**
- **Superior CAF Resistance**
- **Retained Hardness at Wire Bonding Temperature**

■ *Applications*

- **Chip Packaging, PBGA, Wireless Communication, Avionics and Aerospace & High Reliability MLB's.**



■ *Higher Tg than Standard Epoxies - 175°C - 185°C (DSC)*

- **Reduced Thermal Expansion**
- **Reduced Warpage Attributable to Thermal Excursion**
- **Superior Chemical and Thermal Resistance**
- **Compatible with High Operating Temperature, Thermal Cycling Assembly Operations**

■ *Lower Z-axis CTE than Standard Epoxies*

- **130 ppm/°C vs 160 ppm/°C of conventional epoxies (Temp. range: 25 - 250°C)**
- **Reduced Lifted Pads in Reflow, Soldering, or Thermal Stress Testing**
- **Better Plated Through Hole Reliability**



■ *Lower Dk & Df than Standard Epoxies*

- **10 - 15 % lower Dk and 50 % lower Df**
- **Higher Speeds, Higher Frequencies and Impedance Driven Circuits**

■ *Superior CAF Resistance*

- **Superior CAF Resistance in High Bias Applications**
- **Electrical Integrity of Ultra Fine Pitch Leads and Pads under Stress and Moisture Conditions**

■ *Retained Hardness at Wire Bonding Temperature*

- **Over 70 % of Original Hardness through 250°C**
- **Excellent Bonding Integrity to Interconnect Pads**



General Properties

isola

T_g, °C (TMA)		170±5
T_g, °C (DSC)		180±5
T_g, °C (DMA)		190±5
CTE, ppm/°C	x- axis, ambient to T_g	12 - 14
	y- axis, ambient to T_g	12 - 14
	z- axis, ambient to 288 °C	120 - 140
D_k	1MHz	4.0 - 4.2
	1GHz	3.7 - 3.9
D_f	1MHz	0.012 - 0.014
	1GHz	0.008 - 0.010
Peel Strength - 1 oz.	Condition A	7.0 - 9.0
	After Thermal Stress	7.0 - 9.0
Moisture Absorption, max %		0.10 - 0.15*

Material Thickness Tested - 0.008"

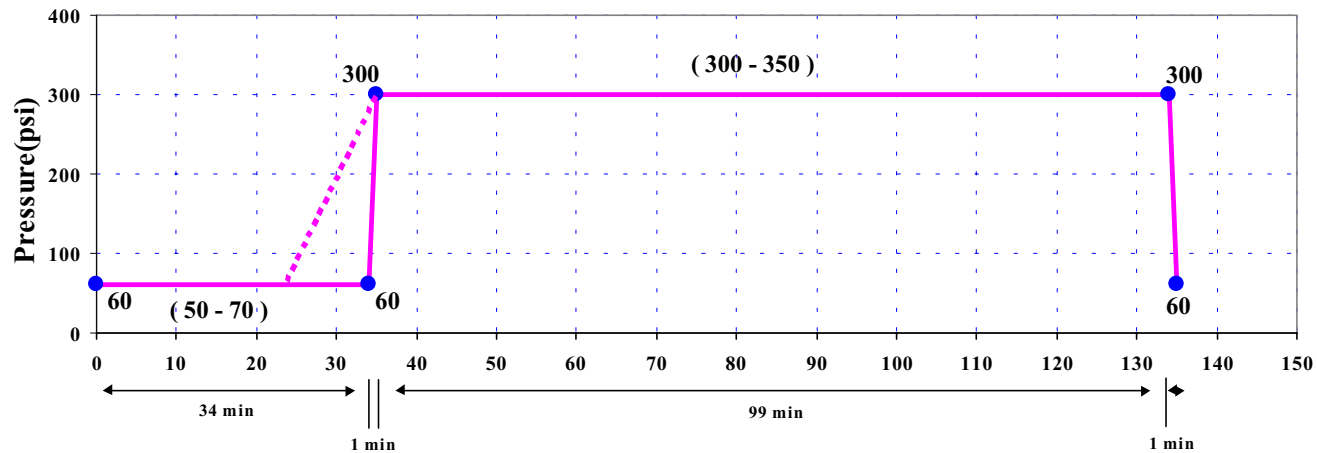
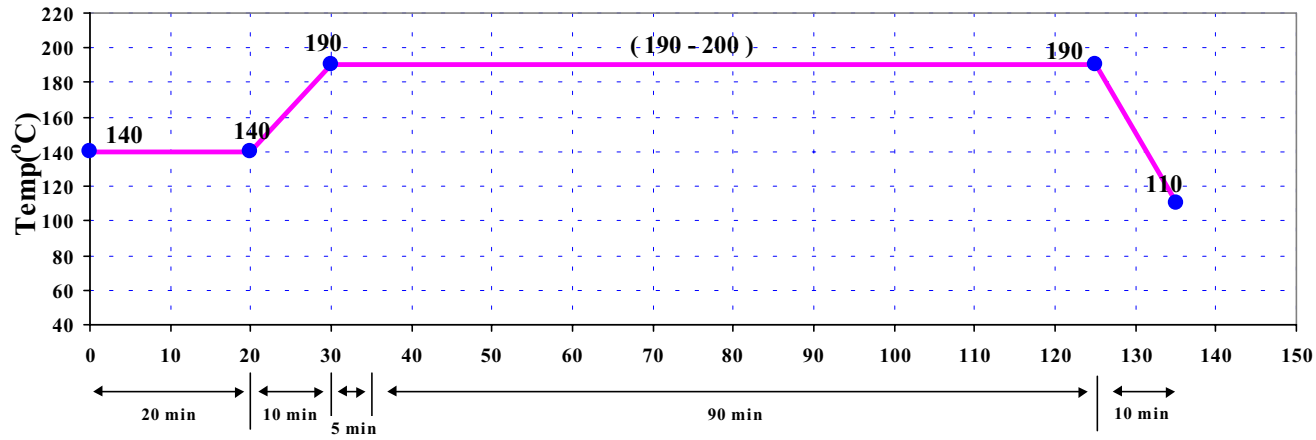
**** Material Thickness Tested - 0.028"***



G200 Press Cycle

isola

(Hot Start)



■ *Laminates*

- 0.05 mm to 1.0mm (0.002" to 0.039") Thickness

■ *Copper*

- 12, 18, 35 and 70 micron HTE

■ *Prepregs*

- Glass Styles : 106, 1080, 2313, 2116, 1652, 1506, 7628
- Thickness Contribution : 0.05 mm - 0.2mm (0.002" ~ 0.008")

■ *Sheet Sizes*

- 36" x 48" 40" x 48" 42" x 48" 42" x 40"

