



	Designation	Std. T <sub>g</sub> 130-140°C	Mid T <sub>g</sub> 150°C	High T <sub>g</sub> >170°C	Thermal resistant, esp. for lead-free technologies	Cycle resistant -40°C/ +140°C, 1000 Zyklen	$lpha_{ m z}$ CTE <70 ppm/K	$lpha_{ m z}$ CTE <50 ppm/K	$lpha_{_{Z}}$ CTE <40 ppm/K	ε <sub>r</sub> D <sub>k</sub> <3.9@2 Ghz	Tan δ D <sub>f</sub> <0.01@2 Ghz	High speed/high frequency	Low damping $(\alpha \text{ S21/db})$	CAF-resistant	Remark	Additional Products:
Standard Epoxy Laminates	DE 104/PCL 240						•								Standard FR4	FR402
	DE 104 KF							•							CTI 400	Tg 140 Tetrafunktion. Epoxy  IS415 TG 170 Epoxy, improved
	DE 114						•								FR-4	
	DE 117/FR406/PCL 370						•								FR-4	
_																— dielectrics
Green _ Laminates _	DE 156								•						Halogen free flame retarder	Dor
	IS500								•						High T <sub>g</sub> , halogen free flame ret.	— <u>P95</u> — Polyimide, HB as per UL94
															-	— Toryimide, 115 ds per 0271
Thermal	DE 104 i	•			•			•						•	High thermal resistance	GETEK
	IS410			•	•		•							•	High thermal resistance	Tg180 PPO/Epoxy blend
	IS400		•					_	•					•	Low CTE: $a_z = 35-40 \text{ ppm/K}$	
	PCL 254		•					•						•	Low CTE: $a_z = 35-40 \text{ ppm/K}$	
	IS420			•					•					•	Low CTE: $a_7 = 35-40 \text{ ppm/K}$	
Laminates	PCL 370HR			•	•	•			•					•	Low CTE: $a_z = 35-40 \text{ ppm/K}$	
Signal _	FR408											•			Signal integrity/Epoxy based	
	IS620											•			APPE-alternative	<del></del>
	IS640														PTFE-alternative	
	13040														TTE diternative	<u> </u>
High-	G 200/GI 180						•			•	•			•	Semiconductor grade	
Performance	P 96/P 26														Polyimid, V-0, MDA-free	