ITEQ
Your Partner of Advanced Materials & Mass Lam Service

IT-180GNBS

High Tg, Halogen Free Multifunctional Filled Epoxy Resin

- High Tg and Halogen-Free, Phosphorous-containing Epoxy Prepreg
- Superior bonding strength to bonding sheet prepreg
- Low powder for punching processing
- Minimal and uniform flow performance
- Good thickness uniformity and flatness
- For rigid-flex board PCB design application

Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength, minimum			
A. Low profile copper foil	2.4.8	7	lb/inch
B. Standard profile copper foil	2.4.8	9	
C. PI Base	-	9.5	
Volume Resistivity	2.5.17.1	$1x10^{10}$	MΩ-cm
Surface Resistivity	2.5.17.1	$1x10^{8}$	MΩ
Moisture Absorption, maximum	2.6.2.1	0.10	%
Permittivity (Dk, 50% resin content)			
A. 1GHz		4.3	
B. 2GHz	2.5.5.13	4.2	--
C. 5GHz		4.0	
D. 10GHz		4.0	
Loss Tangent (Df, 50% resin content)			
A. 1GHz		0.013	
B. 2GHz	2.5.5.13	0.014	--
C. 5GHz		0.015	
D. 10GHz		0.016	
Flexural Strength, minimum			
A. Length direction	2.4.4	N/A	N/mm^2
B. Cross direction		N/A	
Thermal Stress 10 s at 288°C			
A. Unetched	2.4.13.1	Pass	Rating
B. Etched		Pass	
Flammability	UL94	V-0	Rating
Glass Transition Temperature(DSC)	2.4.25	175	˚C
Decomposition Temperature	2.4.24.6	365	˚C
X/Y Axis CTE (40℃ to 125℃)	2.4.41	11-15	ppm/˚C
Z-Axis CTE			
A. Alpha 1		50	ppm/˚C
B. Alpha 2	2.4.24	275	ppm/˚C
C. 50 to 260 Degrees C		2.9	%
Thermal Resistance			
A. T260	2.4.24.1	> 30	Minutes
B. T288		> 30	Minutes