

ITEQ
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& Mass Lam Service

# IT-180GN

**CCL** :None
**Prepreg**: IT-180GNBS

*High Tg, Halogen Free Multifunctional Filled Epoxy Resin*

- ANSI Type : **No ANSI**
- Appliceable IPC-4101 /127/128/130；IPC-4103 /250/550
- 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<br>A. Low profile copper foil<br>B. Standard profile copper foil<br>C. PI Base | <br>2.4.8<br>2.4.8<br>- | <br>7<br>9<br>9.5 | lb/inch |
| 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)<br>A. 1GHz<br>B. 2GHz<br>C. 5GHz<br>D. 10GHz | 2.5.5.13 | <br>4.3<br>4.2<br>4.0<br>4.0 | -- |
| Loss Tangent (Df, 50% resin content)<br>A. 1GHz<br>B. 2GHz<br>C. 5GHz<br>D. 10GHz | 2.5.5.13 | <br>0.013<br>0.014<br>0.015<br>0.016 | -- |
| Thermal Stress 10 s at 288°C<br>A. Unetched<br>B. Etched | 2.4.13.1 | <br>Pass<br>Pass | Rating |
| Flammability | UL94 | V-0 | Rating |
| Glass Transition Temperature(DSC) | 2.4.25 | 175 | °C |
| Decomposition Temperature(5% W.L) | 2.4.24.6 | 365 | °C |
| X/Y Axis CTE (40℃ to 125℃) | 2.4.41 | 11-15 | ppm/°C |
| Z-Axis CTE<br>A. Alpha 1<br>B. Alpha 2<br>C. 50 to 260 Degrees C | 2.4.24 | <br>50<br>275<br>2.9 | <br>ppm/°C<br>ppm/°C<br>% |
| Thermal Resistance<br>A. T260<br>B. T288 | 2.4.24.1 | <br>> 30<br>> 30 | <br>Minutes<br>Minutes |