



## Tpreg™ 1KA Circuit Boards Materials

Tpreg™ 1KA is a thermally conductive electrically insulating pre-preg.

The Tlam thermally conductive printed circuit boards use Tpreg™ 1KA dielectric sheets in conjunction with copper foil and an integral metal base plate to provide a circuit board laminate that has superior thermal management capabilities compared to conventional FR4-based printed circuit boards (PCBs).

Free-standing Tpreg™ 1KA dielectric sheets facilitate multi-layer and FR4-hybrid PCB construction.

Item #	Continuous Operating Voltage	Thermal Conductivity	Thermal Resistance	Dielectric Thickness	Peel Strength
1KA04	50 VAC 95 VDC	3.00 W/m-K	0.050 °C-in <sup>2</sup> /W 0.350 °C-cm <sup>2</sup> /W	0.004 inches 0.102 mm	4.5 lb/in 0.80 kg/cm
1KA06	120 VAC 225 VDC	3.00 W/m-K	0.081 °C-in <sup>2</sup> /W 0.552 °C-cm <sup>2</sup> /W	0.006 inches 0.152 mm	4.5 lb/in 0.80 kg/cm
1KA08	240 VAC 450 VDC	3.00 W/m-K	0.109 °C-in <sup>2</sup> /W 0.703 °C-cm <sup>2</sup> /W	0.008 inches 0.203 mm	5.0 lb/in 1.00 kg/cm
1KA10	360 VAC 630 VDC	3.00 W/m-K	0.140 °C-in <sup>2</sup> /W 0.880 °C-cm <sup>2</sup> /W	0.010 inches 0.245 mm	6.0 lb/in 1.20 kg/cm
1KA12	480 VAC 950 VDC	3.00 W/m-K	0.163 °C-in <sup>2</sup> /W 1.050 °C-cm <sup>2</sup> /W	0.012 inches 0.305 mm	6.0 lb/in 1.20 kg/cm