



Speedboard® C

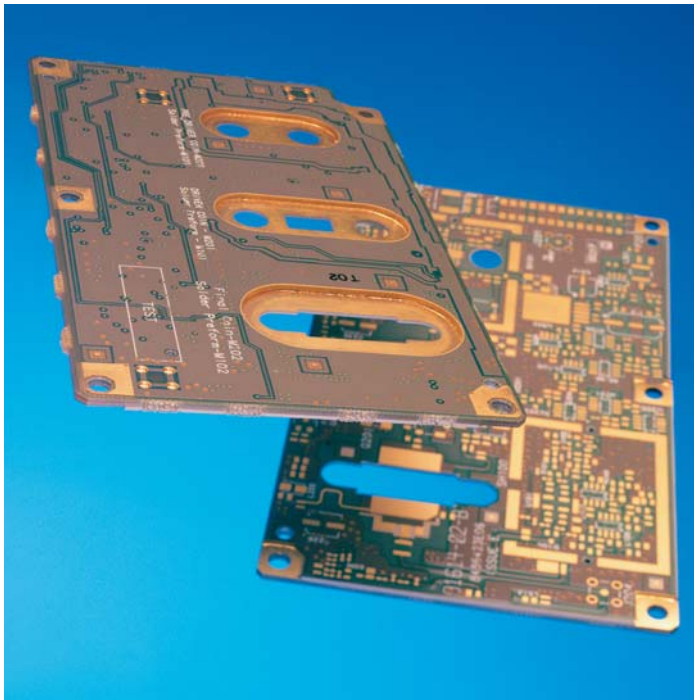
PREPREG

Summary

GORE™ SPEEDBOARD® C Prepreg is the lowest loss, lowest Dk thermoset prepreg compatible with all commercial laminates. This product exhibits controlled X-Y resin flow for superior performance in cavity designs. The material consists of standard BT resin in a continuous toughening matrix.

TYPICAL APPLICATIONS

- Base station power amplifiers and other cavity PCBs
- High speed digital backplanes, routers, and servers
- RF and microwave boards
- High speed test PCBs



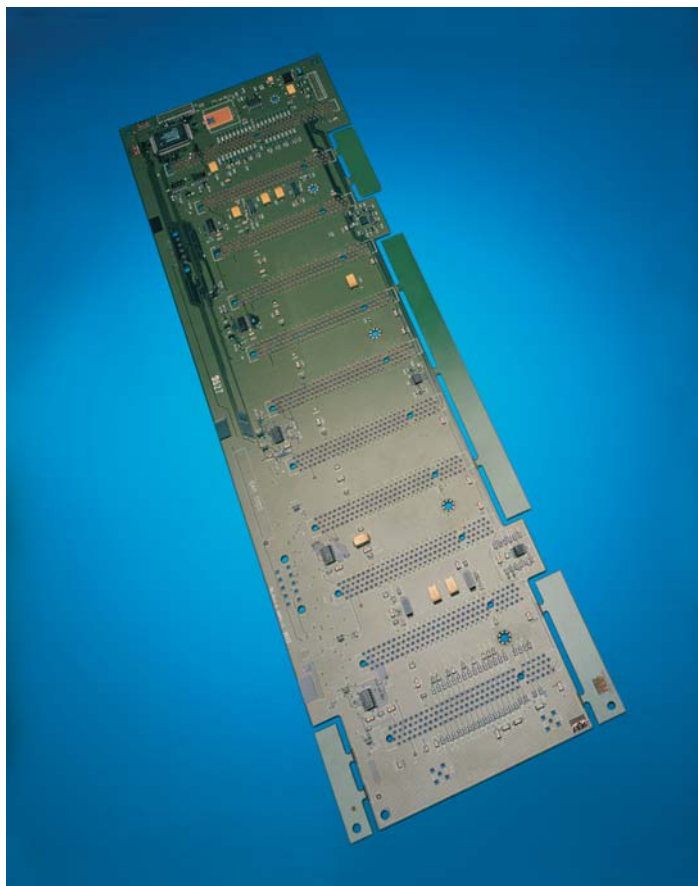
FEATURES AND BENEFITS

- Electrical
 - Low loss for high speed signal integrity
 - Low Dk provides faster signal speeds
 - Stable Dk (2.6) and loss (0.004) from 1MHz–40GHz
 - Wider traces for higher bandwidth
 - Superior thickness uniformity for controlled impedance layers
 - Reduced crosstalk with increased routability
- Reliability
 - High Tg for Pb-free multiple laminations or solder reflows
 - Micro reinforced for superior crack resistance
 - Excellent adhesion to all commercial cores
 - Compatible with Omega-ply
 - Low outgassing for space applications
- Processing
 - Controlled X-Y resin flow for cavity designs
 - Fills buried vias during lamination
 - Standard high Tg FR4 lamination cycle
 - Laser drilling 2–5x faster than glass prepregs
- High Density
 - Thinner boards for high layer count PCBs and improved PTH aspect ratios
 - Minimizes trace “print-through”
 - Excellent choice for high frequency outlayers



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PREPREG



MATERIAL PROPERTIES

Property	Unit	Test Condition	Typical Value
Dielectric constant (Dk)	—	Split post resonant cavity (1MHz–40GHz)	2.6
Loss tangent (Df)	—	Split post resonant cavity (1MHz–40GHz)	0.004
Peel strength	Kg/cm (pli)	17 µm (1/2 oz) VLP foil	1.0
Solder resistance	—	288°C; 6x30 sec	Pass
CTE (X, Y, Z)	ppm/°C	TMA (-55 to +200°C)	56
Glass transition temperature	°C (°F)	TMA	220 (428)
Thickness	µm		38, 51, 57, 86
	(mil)		(1.5, 2.0, 2.2, 3.4)

ROHS STATUS

RoHS Material*	Pass/Fail
Lead (Pb) Content	Pass
Cadmium (Cd) Content	Pass
Hexavalent Chromium (Cr6) Content	Pass
Mercury (Hg) Content	Pass
Bromine Compounds	Pass

*W. L. Gore & Associates declares that we do not intentionally add substances listed in Directive 2002/95/EU to GORE™ SPEEDBOARD® C Prepreg. Independent lab tests have been performed and results are available upon request.

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