



# Speedboard® LF

PREPREG

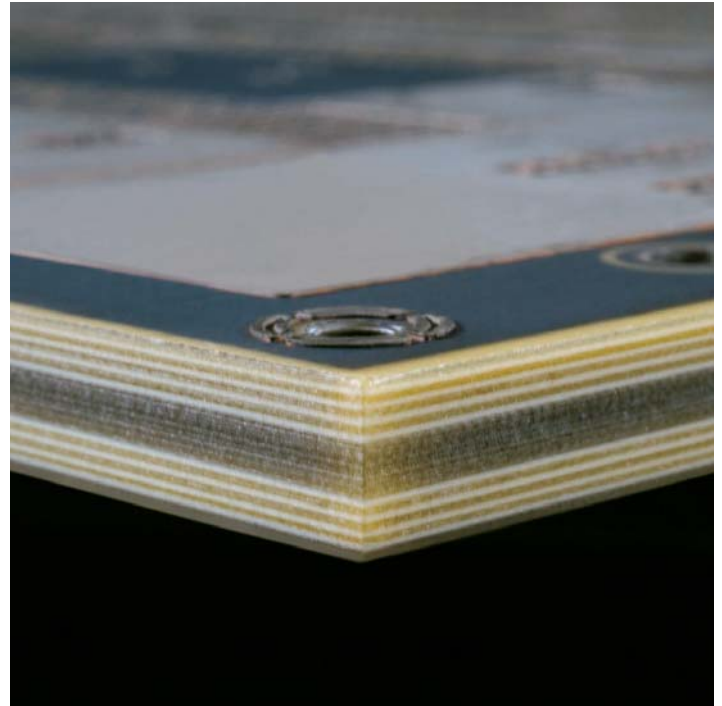
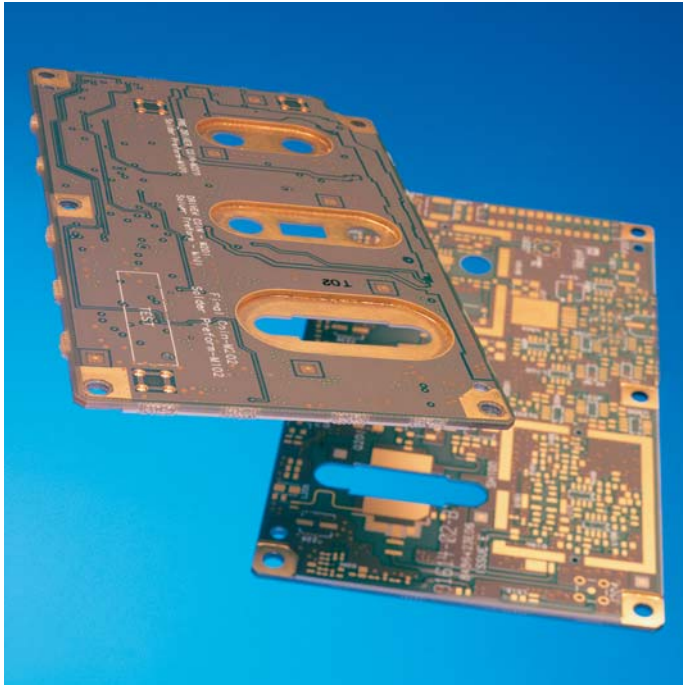
Low Flow

## Summary

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

## TYPICAL APPLICATIONS

- Combine with halogen free FR4 cores for cost/performance
- Combine with RF laminates for high performance
- Base station power amplifiers and other cavity PCBs
- Cavity modules and packages
- Rigid-flex and flex to install



## FEATURES AND BENEFITS

- Electrical
  - Low loss for high frequency signal integrity
  - Low Dk provides faster signal speeds and thinner PCBs
  - 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
  - Repeatable, low 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
  - Low Dk for thinner boards and improved PTH aspect ratios
  - Minimizes trace “print-through”

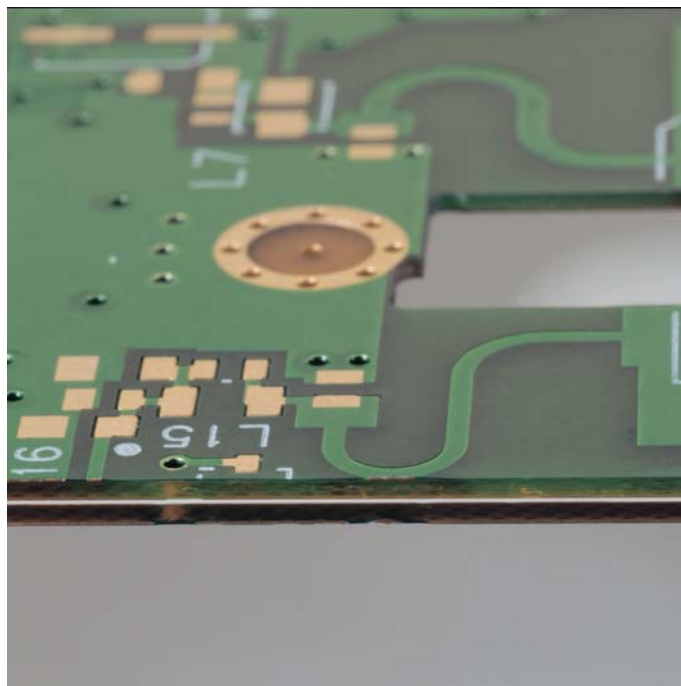


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## MATERIAL PROPERTIES

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	1.1 (6.5)
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		57, 86
	(mil)		(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® LF Prepreg. Independent lab tests have been performed and results are available upon request.

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