BondFilm® EX-S2

Next generation adhesion promoter

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Low roughness bonding enhancement solution for high-frequency applications

Enhanced performance

PCBs for high-frequency applications are in demand of a new bonding enhancement process that gives excellent thermal reliability and provides superior signal loss performance. BondFilm® EX-S2 is an advanced adhesion enhancement promoter that replaces conventional bonding enhancement processes, offering great adhesion performance with minimal copper removal. The minimum etch depth allows for a smooth copper interface that is desired for high-frequency applications.

Features and benefits

- Compatible with a wide range of high-performance materials for low SI loss application
- Minimal copper reduction (0.3 – 0.5 µm)
- Smooth interface < 250nm Ra
- Significant improvement of signal integrity > 8% lower SI loss than conventional processes
- High and consistent peel strength after thermal stress

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Low roughness for low SI loss

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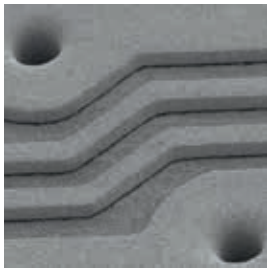


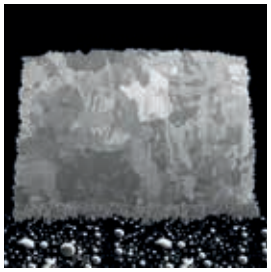
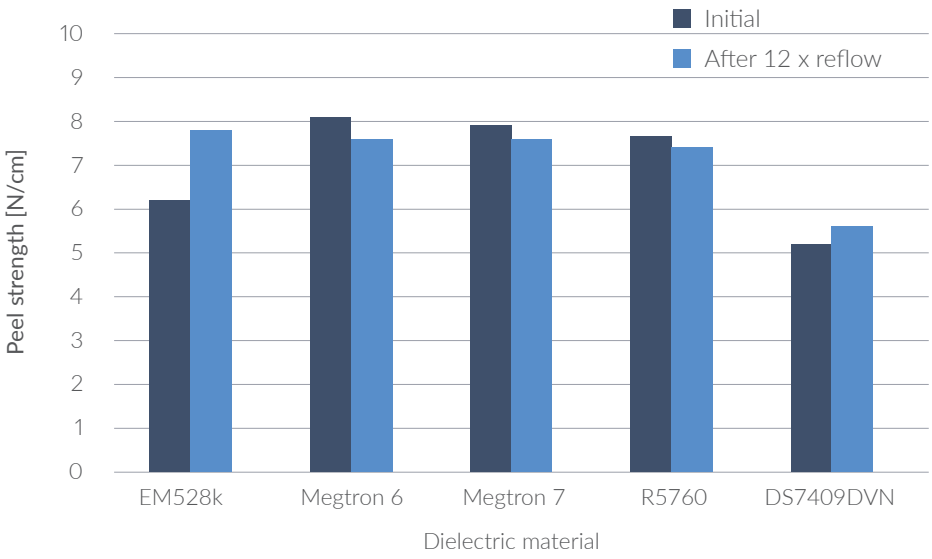
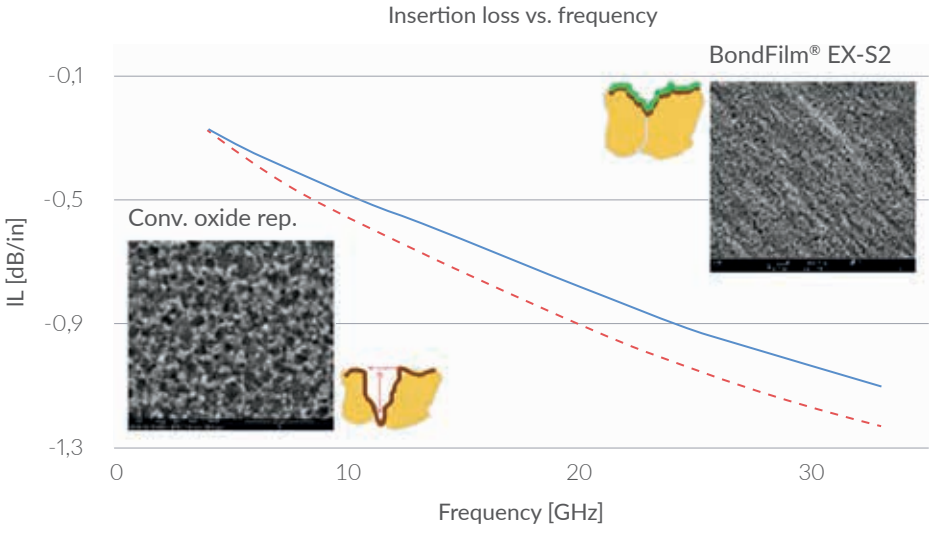


Figure 1:
Smooth conductor shape after BondFilm® EX-S2 process
Figure 2:
FIB x-section image of conductor

Excellent bonding performance with low etch depth for key low loss materials



BondFilm® EX-S2 advanced adhesion enhancement process sequence



0.3-0.5

µm etch depth

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