

XT/duroid® 8000 and XT/duroid 8100 High Performance Circuit Material Quick Reference Processing Guide

Material Description:	Ultra-thin copper clad cores using a filled, high Tg resin system.
Storage:	Ambient
INNER LAYER PREPARATION	
Tooling:	Compatible with most pinless and round or slotted hole systems.
Surface Preparation for Photoresist Applications:	Chemical preparation
Photoresist Applications:	Standard film and liquid resists & procedures
DES Processing:	Thin cores may require leader boards or support frames. Preserve post-etch surface topography
Oxide Treatment:	Oxide treat as required for chosen prepreg or bondply and use procedures recommended by vendor of the oxide or oxide alternative process
BONDING	
Final Preparation:	125°C to 150°C (257°F-302°F) Pre-bake required to pre-dry layers
Multilayer Adhesive System:	Cores are compatible with most thermoplastic and thermoset bonding films including RO4450F™ prepregs.
Multilayer Bond Cycle:	Use bond parameters associated with adhesive system.
PTH AND OUTER LAYER/DOUBLE SIDED CIRCUIT PROCESSING	
Drilling:	Rigid and supportive entry/exit materials such as pressed phenolic. Use new drills. Controlled infeeds, speeds, and retract rates. Hit count determined by inspection of PTH's.
Deburring:	Mechanical debur/scrub not recommended. Very light applied pressure if debur is required.
Hole Preparation:	A two step plasma process required first to desmear/texture hole walls and second to improve the wettability of surfaces to be plated. A glass etch may be required to reduce the risk of plated nodules.
Metallization:	Electroless copper (low or regular dep rates preferred over heavy dep processes) or direct deposit processes are acceptable. Flash plate recommended prior to outer-layer imaging.
PTH PLATING AND OUTER-LAYER IMAGING	
Outer-Layer Imaging	Standard processing of outer-layer features. Copper plate, tin plate, and SES as standard
Final Surfaces:	Compatible with most final metals surfaces and OSP's. Preserve post-etch surface and bake cores prior to application of LPI.
Final Circuitization:	Rout & punch as required. Material support and sharp edges on cutting tools required through mechanical processes.

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