

# CLTE Series™ (CLTE™, CLTE-XT™, CLTE-AT™, CLTE-MW™) High Frequency Laminates Quick Reference Processing Guide

<b>Material Description:</b>	Copper clad ceramic filled, woven glass reinforced PTFE composites.
<b>Storage:</b>	Ambient
<b>INNER LAYER PREPARATION</b>	
<b>Tooling:</b>	Compatible with most round and slotted hole systems.
<b>Surface Preparation for Photoresist Applications:</b>	Chemical preparation.
<b>Photoresist Applications:</b>	Standard film and liquid resists and procedures.
<b>DES Processing:</b>	Standard processing. Thin cores may require leaders or frames.
<b>Oxide Treatment:</b>	Use procedures associated with oxide or oxide alternative of choice.
<b>BONDING</b>	
<b>Final Preparation:</b>	125°C to 150°C (257°F to 302°F) Pre-bake required.
<b>Multilayer Adhesive System:</b>	Compatible with most thermoplastic and thermoset films.
<b>Multilayer Bond Cycle:</b>	Use bond parameters associated with adhesive system.
<b>PTH AND OUTER LAYER/DOUBLE SIDED CIRCUIT PROCESSING</b>	
<b>Drilling:</b>	Rigid and supportive entry/exit materials such as pressed phenolic. Use new drills. Controlled infeeds, speeds, and retract rates. Use 12" rule to determine initial hit counts.
<b>Deburring:</b>	Mechanical debur/scrub not recommended. Very light applied pressure if debur is required.
<b>Hole Preparation:</b>	Pressurized water or air purge of holes is okay. Sodium or plasma treatments required prior to metal deposition. Bake required after sodium treatment.
<b>Metallization:</b>	Electroless copper (low or regular dep rates preferred over heavy dep processes) or direct deposit processes.
<b>PTH PLATING AND OUTER LAYER IMAGING</b>	
<b>Final Surfaces:</b>	Compatible with most final metals surfaces and OSP's. Preserve post-etch surface and bake cores prior to application of LPI.
<b>Final Circuitization:</b>	Rout & punch as required. Material support and sharp edges on cutting tools required through mechanical processes. Prefer CLTE series products if high quality edges are required.

The information in this processing guideline is intended to assist you in designing with Rogers' circuit materials. It is not intended to and does not create any warranties express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on this processing guideline will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers' circuit materials for each application.

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