



CTD-450

Cyanate Ester based Primer for Improved Bonding to Copper

- Increases cyanate ester-to-copper adhesive shear strength from 15 to 45% at cryogenic and elevated temperatures.
- Low-viscosity, easy-to-apply system with a long pot life.
- May be applied by brushing, spraying, or alternative method to provide minimum thickness and complete coverage.
- Extremely high radiation resistance.

Suggested Application Method:

1. Grit blast copper
2. Clean copper (dry nitrogen, then ethanol)
3. Fully dry substrate
4. Apply coating of CTD-450 primer (typical thickness 0.007 to 0.025 mm)
5. B-stage or Cure (application dependent)

Suggested Curing Processes: (more detail available upon request)

B-stage:

- Heat part to be primed to 100°C
- Apply primer to heated part
- Maintain part temperature at 100°C for at least 1 minute
- Remove from heat at desired tack
- Allow for residual heating due to thermal mass of part

Cure:

- Ramp for 3 hours to 110°C
- Hold at 110°C for 8 hours
- Ramp for 2 hours to 150°C
- Hold at 150°C for 4 hours
- Cool to room temp

Apparent Interlaminar Shear Strength (based on ASTM D2344)

