

GLAST Conductive Glue Discussion

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SCIPP

3/9/00

REQUIREMENTS

- ◆ Room temperature cure. (?)
- ◆ Compliant (to avoid stress concentration at bond edges)
- ◆ Thixotropic (doesn't flow)
- ◆ High Strength (to prevent ladder buckling and bond line peeling- recent results)
- ◆ Operating temperature -55 C to 60 C
- ◆ Meets NASA outgassing specs
- ◆ Safe for semiconductors (low ion content)

USE

- ◆ Mechanical and electrical connection of SSD to Kapton bias circuit.
- ◆ 4 mil bond line (can be adjusted, but affects tower geometry).

ISSUES

- ◆ Silver migration
- ◆ Aging
- ◆ Room temperature cure with low outgassing
- ◆ Ion content

CANIDATES

Company	Name	NASA approved	Min. Cure Temp, (C)	Comments
Nusil	CV-2640	Yes	25	Silicone, carbon filled, resistivity increased a lot with thermo-cycling
AI Technology	ME8456	Yes	80	Compliant, benchmark material for NASA, Lockheed, Boeing
Epo-Tek	H20E	Yes	50	
Epo-Tek	8 other possibilities	YES	High	