

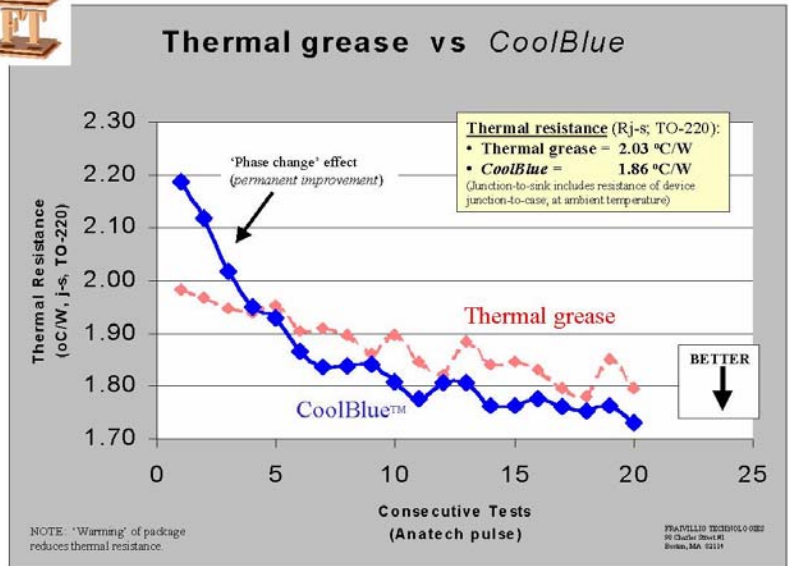


**CoolBlue™** Phase-change thermal interface material [DRAFT]

CoolBlue™ phase-change thermal interface material has excellent thermal transfer performance with clean, easy application at a cost-effective price. It is applied like a crayon or paint between a power device and a heat sink, or between mated heat sink/housing assemblies. CoolBlue then wicks and flows when heated to 60°C – this capillary action and volumetric-increase removes air from the interface, providing better thermal transfer than conventional thermal grease (*see opposite*). Features include:

- Will not dry out, flake, crack or migrate.
- Will not drip (under normal operating conditions, even with vertical interface orientation).
- Silicone-free, which eliminates the concerns with thermal grease of silicone-migration and solder bath contamination.
- Applied dry, consistently and reliably.
- Electrically non-conductive.
- Cost-effective vs. thermal grease and phase-change alternatives.

<b>CoolBlue™</b> Properties	
Specific gravity	1.6
Thermal resistance	0.02 °C-in <sup>2</sup> /W (Between device and heat sink, 100 psi)
Health hazard	<i>Least</i> (NFPA classification = 0)
Flammability	<i>Slight</i> (NFPA classification = 1; Burns, but will not ignite readily)
Flash point	215 °C / 420 °F
Reactivity	<i>Least</i> (NFPA classification = 0)



APPLICATION NOTES

- Use like a crayon – rub on with manual contact pressure. Normal surface coverage is 0.5-1.0 mil.
- If surfaces are not smooth, CoolBlue application to both mated surfaces is recommended to ensure sufficient wetting.
- Warming a heat sink before rubbing on CoolBlue (to >43°C / 110°F) will give a more even application thickness.
- Phase-change occurs at 60°C / 140°F – optimal thermal performance is obtained when this temperature is reached, and is permanent.
- If the gap between mated surfaces is large (>1 mil), CoolBlue can also be applied in liquid form. Melt the compound, stir, and apply evenly with a paint brush or equivalent.
- Recommended operating temperature is -40 to 150°C (-40 to 302°F).
- Store CoolBlue at <38°C / 100 °F.

