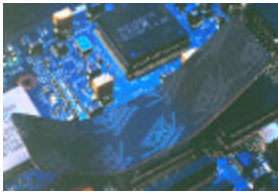
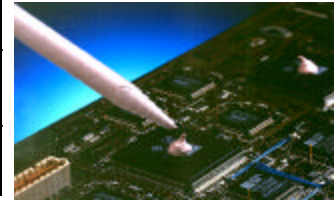




Thermally Conductive Silicone Compounds (THERM-A-FORM™)

Compounds	Thermal Conductivity	Comments
1641	0.90 W/m-K	1-part, encapsulant, potting compound
1642	0.95 W/m-K	2-part, encapsulant, potting compound
T642	1.2 W/m-K	2-part, form-in-place, low extractable silicone
T644	1.2 W/m-K	2-part, form-in-place, softest, for underfill or overfill applications
T646	0.9 W/m-K	Combines high thermal conductivity and low cost



Heat Spreaders (T-WING®, C-WING™)

Material	Thickness In. (mm)	Thermal Conductor	Component Temp Reduction	Comments
T-Wing	0.013 (0.33) or 0.030 (0.76)	Copper	16°C	Flexible, conformable, low profile, "peel & stick"
C-Wing	0.060 (1.53)	Aluminum Oxide or Alum Nitride	12°C	For EMI-sensitive low profile, "peel & stick" applications



Ⓜ Reduced Junction Temp of 3W PQFP pkg when using 2.25 in² T-Wing or C-Wing.

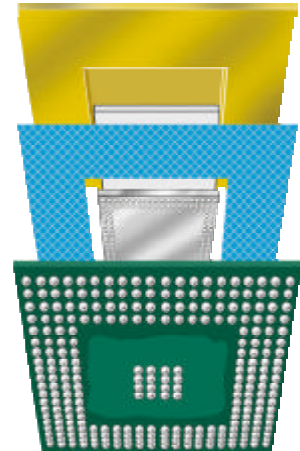
SEMICONDUCTOR PACKAGING MATERIALS

The explosive growth of array packaging presents new challenges to the users and suppliers of high performance materials for semiconductor assembly. Traditional material sets are no longer capable of handling the requirements of these high density packages. Our thermal products has been designed to meet the needs of this burgeoning market.

Phase-Change Interface Pads (THERMFLOW™)

Material	Thickness In. (mm)	Thermal Impedance	Comments	Application
T443	0.005 (0.13)	0.10°C-in ² /W	Fiberglass-reinforced	Replaces grease for flip chip die interface
Ⓜ T725	0.005 (0.13)	0.03°C-in ² /W	Inherently tacky, no carrier	

Ⓜ US Patent No. 6,054,198



Thermally Conductive Adhesive Tapes (THERMATTACH®)

Material	Thickness In. (mm)	Thermal Conductivity	Comments	Applications
T421	0.002 (0.05)	0.46 W/m-K	Transfer adhesive for roller laminations	Bonding heat spreaders and stiffeners to flexible and rigid substrates in TBGA, EBGA and Flip Chip lid attach.
T422	0.003 (0.08)	0.43 W/m-K	Transfer adhesive for roller laminations	
T424	0.007 (0.18)	0.40 W/m-K	Fiberglass carrier, embossed surface	
T427	0.007 (0.18)	0.43 W/m-K	Kapton [®] MT carrier, embossed surface	

