THERMATTACH® Tape

Tape Application Instructions: T404, T405, T405-R, T411, T412, T413, T414, T418

MATERIALS NEEDED

- Clean lint-free cloth rag
- Industrial solvent
- Rubber gloves

For optimal performance, Chomerics recommends interface flatness of 0.001 in/in (0.025 mm/mm) to 0.002 in/in (0.050 mm/mm) maximum.

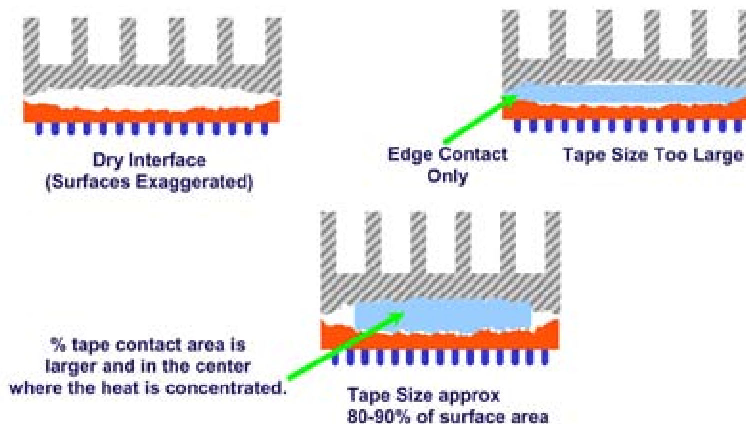
Step 1: Ensure that bonding surfaces are free from oil, dust, or any contamination that may affect bonding. Using rubber gloves, wipe surfaces with a cloth dampened with industrial solvents such as MEK, toluene, acetone or isopropyl alcohol.

Step 2: Cut tape to size* and remove a liner or remove pre-cut tape from roll.

*Note: Due to variations in heat sink surfaces, Chomerics' data indicates that it sometimes is beneficial to be cut slightly smaller than the area of the heat sink. See illustration.

Step 3: Apply to center of heat sink bonding area and smooth over entire surface using moderate hand pressure / rubbing motion. A roller may be useful to help smooth the part to the surface by rolling from the center out to beyond the edges of the part. This ensures optimal contact between tape and heat sink.

Step 4: Center heat sink onto component and apply using any one of the recommended temperature/ pressure options:



Minimum: 10 psi at room temperature for 15 seconds

PREFERRED: 30 psi at room temperature for 5 seconds

More pressure equals better wetting out of the adhesive to the contact surfaces. A twisting motion during assembly of the substrates will typically improve wetting.

Note that typically 70% of the ultimate adhesive bond strength is achieved with initial application, and 80-90% is reached within 15 minutes. Ultimate adhesive strength is achieved within 36 hours; however the next manufacturing step can typically occur immediately following the initial application.

REMOVAL INSTRUCTIONS

Materials needed: Single-edged razor blade or a small, thin-bladed pocketknife; soft, thin metal spatula. Use safety precautions when handling sharp instruments and organic solvents.

Step 1: Carefully insert the blade edge into the bond line at a corner between the heat sink and the component. The penetration need not be very deep.

Step 2: Remove the blade and insert the spatula into the wedge. Slowly twist the spatula blade so that it exerts a slight upward pressure.

Step 3: As the two surfaces start to separate, move the spatula blade deeper into the bond line and continue the twisting motion and upward force.

Step 4: After the two components are separated, the tape can be removed and discarded. If adhesive remains on the component surfaces, it must be removed. Adhesive is best removed by wiping with a clean rag (lint-free) dabbed with isopropyl alcohol, MEK or toluene. Use sufficient solvent to remove all adhesive.

Step 5: Solvent cleaned components must be verified 100% free of cleaning solvent and prior to reattachment of adhesive.

Relative Thermal Performance

Thermally Conductive Attachment Tapes							
	Typical Properties	T418	T412	T404 / T414	T405 / T405-R	T411	T413
Performance*	Ceramic Attachment	5	3	4	4	4	4
	Metal Attachment	5	3	4	4	4	4
	Plastic Attachment	N/R	N/R	N/R	N/R	5	N/R
	Dielectric Performance	3	N/R	5	N/R	N/R	3
	Thermal Performance	2	5	3	4	2	3

* Performance rated on a scale of 1-5, 5 being the best. N/R = Not Recommended.