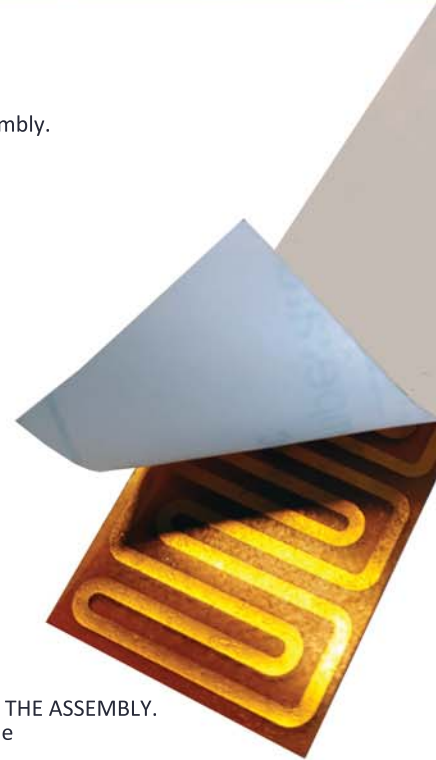


Preparation

It is of utmost importance that proper training exists for the team members assembling the heater sub assembly. They should follow the instructions below as best as possible.

Instructions for mounting flexible heaters with acrylic adhesive

1. The ambient temperature during assembly should not be less than 15°C and the relative humidity level less than 60%.
The best application conditions are obtained at a temperature between 20°C and 40°C.
2. Ensure that the heat sink surface is completely clean from oil, dust, moisture and other contaminants. Wipe the surface with a lint-free cloth moistened with a suitable solvent such as isopropyl alcohol.
NOTE: Use proper safety precautions for handling solvents.
An etched or slightly roughened heat sink surface will enhance bond strength.
3. With the PSA release liner still intact, place the heater onto the heat sink in the desired position. Once the desired position is achieved, peel off the release liner from one corner of the heater while leaving the remaining release liner intact. Tweezers may be helpful for lifting the liner. Avoid touching the exposed PSA. Apply the heater to the heat sink in its correct position, beginning at the corner edge of the exposed PSA using firm, even hand pressure.
4. Slowly peel off the remaining release liner from the PSA while adhering exposed PSA to the heat sink. Work from the adhered end outward to avoid trapping air. For flat surfaces it is recommended to use a rubber roller* to press the heater onto the heat sink.
NOTE: Trapped air can create hot spots and cause shorter lifetime of the heater.
NOTE: If air bubbles occur, the heater is scrapped. DO NOT CUT INTO THE HEATER TO ALLOW AIR OUT OF THE ASSEMBLY. To ensure better and long term adhesion, the assembly should be subjected to as high pressure as possible without damaging the substrate, preferably higher than 1kg/cm².
5. After 24 hours curing time, the heater is ready for operation and/or testing.
However, for the best adhesion, we recommend steps 6 through 8.
NOTE: Do not cure PSA in the oven if the heat sink cannot withstand the temperatures recommended in the following steps.
6. Use a rubber roller* to press the heater onto the heat sink. Roll from the center toward the edges to remove trapped air.
7. Place the installed heater in an oven at 60-70°C for ten minutes. While the adhesive is still warm, repeat step 6 above. A two to three day wetout time will maximize adhesion.
8. Heating elements with Pressure Sensitive Adhesives should be stored at room temperature and 40-70% RH.
9. When a heater is wrongly mounted or for any other reasons needs to be removed from the substrate, the easiest way is to cool the assembly down to -30C. At this temperature the adhesion is only a fraction of the adhesion at room temperature and can then easily be ripped of the substrate. The heater is scrapped but the substrate can in most cases be reused after proper cleaning.



Acrylic Adhesives

Benefits acrylic PSA's

- High bond strength
- Wide temperature range
- Good chemical resistance
- RoHS compliant

* Examples of silicone rubber rollers:



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