MINCO

Engineering Instruction No. 117

INSTRUCTIONS FOR USING MINCO #6 RUBBER ADHESIVE

Minco #6 is a room-temperature vulcanizing silicone rubber adhesive suitable for use up to 260°C (500°F). It is compatible with most metals and polymers including silicone rubber, polyester and Teflon (if treated for bondability). The instructions below should be carefully followed when bonding Thermofoil™ Heaters or Thermal-Ribbon sensors to heat sink surfaces using this adhesive.

1. Clean the bonding surfaces of all dust and oils with a suitable solvent. Toluene, xylene, or acetone may be used for this purpose.

2. Apply a thin (0.001” to 0.005”), uniform coat of adhesive to the flat mounting surface of heater or sensor to be bonded. Depending on adhesive thickness, one ounce of Minco #6 will usually cover two to three square feet of surface area. It is essential that the adhesive thickness, and thus thermal resistance between the heating or sensing element and heat sink, be kept to a minimum. This will result in the minimum temperature gradient between the element and the heat sink.

3. The adhesive will cure and become tack-free approximately 30 minutes after exposure to air. Therefore, immediately after step 2, position the heater or sensor (with a maximum center to edge distance of 5”) on the part. Apply uniform mechanical pressure. Fifteen pounds per square inch (1 kg/sq cm) is usually sufficient to remove voids and bubble in the adhesive.

4. For maximum bond strength, continuous pressure should be applied for a minimum of two hours. Do not apply heat as this may result in the formation of bubbles in the adhesive.

5. After two hours, the adhesive will be sufficiently set for handling of the part. However, an additional 24 hours minimum cure time is necessary before placing any mechanical stress on the bond joint or before energizing a Thermofoil™ Heater.

6. Close the adhesive container tightly after usage. When tightly sealed and stored below 27°C (80°F), the useful shelf life of this adhesive will be more than six months.

We believe this information to be reliable, but the customer must assume responsibility for heater performance in the intended application. Minco accepts no liability beyond our standard warranty for consequences of improper installation and/or heater or adhesive failure.

If any questions or problems occur, contact your Minco sales representative or the factory for assistance.