50-1952
THERMALLY CONDUCTIVE SILICONE POTTING AND ENCAPSULATING COMPOUND

DESCRIPTION:

50-1952 is a two component silicone potting and encapsulating compound. This silicone system is designed for quick thermal transfer away from heat generating electronic devices. The 50-1952 has a simple 1:1 mix ratio, can be cured in thick sections, is non-corrosive, and reversion resistant. The black silicone resin and white activator provide an excellent visual indication of a complete mix.

50-1952 is formulated without solvents or other toxic materials. It is therefore not regulated or considered hazardous for transportation. 50-1952 is REACH and RoHS Compliant.

FEATURES:	**BENEFITS**
• Flexible	• Low stress on components and vibration resistant
• Thermally conductive	• Quick heat dissipation extends electronic life
• Solvent free	• No by-products released during cure and safe to handle
• Deep section curing (beyond 1-2 inches)	• No need for multiple pours due to low exotherm
• High operating temperatures	• Good protection in extreme environmental applications
• Easy 1:1 mix ratio	• Simple to Use

TYPICAL SPECIFICATIONS:

Color	
Resin (Part A)	Black
Activator (Part B)	White
Mixed	Gray
Viscosity, @ 25°C, cps	
Resin (Part A)	60,000
Activator (Part B)	20,000
Mixed	30,000
Specific Gravity, @ 25°C	
Resin (Part A)	2.05
Activator (Part B)	2.12
Pot Life, 25°C, 100 grams	1.5 hours
Hardness, Shore A	75
Elongation, %	45
Tensile Strength, psi	500
Thermal Conductivity, W/m- °K	1.1
Coefficient of Thermal Expansion, per °C	2×10^{-4}

TYPICAL SPECIFICATIONS (continued):

Volume Resistivity, ohm-cm, 25°C	1×10^{14}
Dielectric Constant @ 1Mz	5.0
Dielectric Strength, V/mil	450
Operating Temperature, °C	-65 to +235

INSTRUCTIONS FOR USE:

1. Mix base and hardener separately since some settling of fillers may occur.
2. By weight, mix 100 parts base silicone to 100 parts activator by weight or volume. Mix uniformly, scraping sides and bottom of mixing container. Do not whip air into mixture.
3. De-air by pulling vacuum on mixed material.
4. Pour and let cure overnight at room temperature or follow one of the schedules below:

25°C	2-7 Days
65°C	2-4 Hours
100°C	1 Hour
150°C	20 Minutes

NOTES:

1) 50-1952 may be cured over a broad temperature range. After 24 hours at ambient temperature it will be cured enough to handle.
2) For optimum properties, follow the initial cure with a post cure of 2 Hours @ 175°C.

SUBSTRATE NOTES:

Certain materials may inhibit the cure of this product. Materials that should be avoided include sulfur containing materials, nitrogen containing materials (i.e. amines) some silicones (tin cured), and butyl and chlorinated rubbers. If in doubt, a patch test should be done.

STORAGE:

When stored in the original, unopened container, in a dry location at 65° - 80°F, 50-1952 has a shelf life of approximately twelve months.

AVAILABILITY:

50-1952 silicone is available in quart, gallon, five gallon pail, and 55 gallon drum kits.

IMPORTANT:

02/19