

20-1640

SILICONE POTTING AND ENCAPSULATING COMPOUND

DESCRIPTION:

20-1640 is a two component silicone elastomer. When cured, this material forms a soft and highly flexible electrically insulating package.

20-1640 can be used for potting or encapsulating electronic packages that have sensitive components. Due to its low stress during and after cure, this material will not crush or damage delicate components.

20-1640 is formulated without solvents or other toxic materials. It is therefore not regulated or considered hazardous for transportation.

FEATURES:

- Flexible
- Deep section curing (beyond 1-2 inches)
- High operating temperatures
- Solvent free

BENEFITS:

- Low stress on components and vibration resistant
- No need for multiple pours due to low exotherm
- Good protection in extreme environmental applications
- No by-products released during cure and safe to handle

TYPICAL SPECIFICATIONS:

Color	
Resin (Part A)	White
Activator (Part B)	Clear
Viscosity, @ 25°C, cps	
Resin (Part A)	150,000
Activator (Part B)	100
Mixed	50,000
Specific Gravity, @ 25°C	
Resin (Part A)	1.6
Activator (Part B)	0.97
Mixed	1.54
Pot Life, 25°C, 100 grams	1 Hour
Hardness, Shore A	34
Elongation, %	430
Tensile Strength, psi	175
Tear Strength, pli	18.5
Thermal Conductivity, btu-in/hr-ft ² ·°F	1.1
Coefficient of Thermal Expansion, per °C	2 x 10 ⁻⁴
Volume Resistivity, ohm-cm, 25°C	1 x 10 ¹⁴
Dielectric Constant @ 100 Hz	3.1
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 10 parts activator. 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	24-48 Hours
65°C	2-4 Hours
100°C	1 Hour
150°C	20 Minutes

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, 20-1640 has a shelf life of approximately six months.

AVAILABILITY:

20-1640 silicone is available in quart, gallon, five gallon pail, and 55 gallon drums.

IMPORTANT:

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11/12