

## 904-64

### A Two Component Addition Cured Silicone Potting Compound

#### Description:

**904-64** is a two-component, thermally conductive, red, high performance room temperature addition curing silicone.

#### Advantages:

**904-64** features easy air release and minimal shrinkage. It has excellent mechanical and thermal properties. **904-64** offers a wide range of service temperatures and excellent chemical resistance. It has a rating of UL 94V-0 (File # E-48923). A fully cured end product will not undergo reversion until normal operating conditions are exceeded. The **904-64** mixed system features a moderate set up time at temperatures above 20°C. Cure times are directly related to the mass of the material.

#### Applications:

**904-64** is widely used in the manufacture of electrical and electronic components as a cushion coating as well as an encapsulant or potting compound.

#### Physical Properties:

	<u>Resin</u>	<u>Curative</u>
	904-64A	904-64B
Color:	Red	Ivory
Specific Gravity:	1.65	1.65
Mixed Viscosity, @ 25°C (cP):	10,000	
Mix Ratio:		
(By Weight):	100.0	100.0

#### Instructions:

Combine the Curative and pre-polymer in the ratio listed above. Mix by hand or mechanical mixer until material is uniform in appearance. Place mixed material in vacuum chamber and degas to a minimum of 29 in Hg for five minutes. Remove and use degassed material within ten minutes.

#### Shelf Life: (Sealed containers)

One year @ 25°C (both A+B). Hand agitation of the Pre-polymer components is recommended after longstanding to insure best results.

#### Cure Schedules:

Overnight or 16 hours @ 25°C (77°F) will yield 80% of the system's full potential. An additional 80 hours @ 25°C (77°F) will yield the systems full potential.

% Full Cure:	80%	100% <b>or</b>	100%
Cure Temperature:	25°C	25°C	65°C
Cure Time (hours):	16	96	1

**Pot Life** (50 grams) @ 25°C = 120 minutes

#### Cured Properties:

Shore Hardness, measured @ 25°C:	>65A
Tensile Strength, (psi)	>575
Tear Strength, (ppi)	12
Elongation, (%)	>75
CTE x 10 <sup>-5</sup>	1.7 x 10 <sup>-5</sup>
Dielectric Strength VTM	650
Dielectric constant @ 1 MHz	3.9
Dissipation factor @ 1KHz	0.0009
Volume resistivity Ohm-cm	10 <sup>14</sup>
Thermal Conductivity,	
BTU-in/ (ft <sup>2</sup> ) (hr) (°F):	11.2
BTU-ft/ (ft <sup>2</sup> ) (hr) (°F):	0.93
Cal-cm/ (cm <sup>2</sup> ) (sec) (°C):	0.0042
Service Temperature, (°C):	-55 to +260

#### Storage and Handling:

Normal storage and handling is at room temperature. Use standard mixing and housekeeping procedures to minimize the risk of spills and contact with individuals and the surrounding materials. Required storage temperature is 20 to 30°C. Upon opening and using the individual components wipe the rim of the containers. Reseal containers immediately after using. This is a recommended procedure after each use.

All values reported above are typical values, and are reported as a means of reference. Individual testing should be done to determine actual results, tested at specific conditions.

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