CREATIVEMATERIALS

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904-64-4

A Two Component Addition Cured Silicone Potting Compound

Description:

904-64-4 is a two component, thermally conductive, high performance room temperature addition curing silicone.

Advantages:

904-64-4 features easy air release properties, minimal shrinkage, great mechanical and thermal properties. ***904-64-4*** offers a wide range of service temperatures, features excellent chemical resistance and 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. ***904-64-4*** features a moderate set up time at temperatures above 20°C. All gel and cure times are directly related to the mass of the material

Applications:

904-64-4 is widely used in the manufacture of electrical and electronic components as a cushion coating, an encapsulant or potting compound.

Physical Properties:

	Resin	Curative
	904-64-4A	904-64-4B
Color:	Red	Ivory
Specific Gravity:	2.13	2.13
Viscosity @ 25°C:	231,600cP	20,360cP
Mix Ratio:		
(By Weight):	100.0	100.0

Shelf Life: (Sealed containers)

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

Instructions:

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

Cure Schedules:

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

% Full Cure:	80%	100% **or**	100%
Cure Temperature:	25ºC	25ºC	65ºC
Cure Time (hrs):	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^{-5}	1.7 x 10^{-5}
Dielectric Strength VTM	650
Dielectric constant @ 1 MHz	3.9
Dissipation factor @ 1KHz	0.0009
Volume resistivity Ohm-cm	10^{14}
Thermal Conductivity,	
BTU-in/ (ft^2) (hr) (°F):	11.2
BTU-ft/ (ft^2) (hr) (°F):	0.93
Cal-cm/ (cm^2) (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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