



TECHNICAL DATA SHEET

Noelle Industries, Inc.
Adhesives • Coatings • Conductives • Encapsulants

NOELLE 810-27

A Two Component Epoxy Potting Compound

Description:

Noelle 810-27 System is a Dark Gray two component (A + B) aluminum oxide filled, room temperature curing, liquid epoxy potting compound. Noelle 810-27 is a lower viscosity version of Noelle 810-24.

Advantages and Applications:

Noelle 810-27 features a medium viscosity and reasonable working time in a one-pound mass of material. Noelle 810-27 system is designed to meet or exceed the requirements to pass UL94 V-0 after full cure at room temperature. Noelle 810-27 is primarily used for potting or ruggedizing heat sensitive electronic parts. The medium viscosity mixture exhibits exceptional wetting properties during application.

Physical Properties:

| | <u>Resin</u> | <u>Hardener</u> |
|-------------------|--------------|-----------------|
| | 810-27A | 810-27B |
| Color: | Black | Cream |
| Specific Gravity | 1.59 | 1.59 |
| Combined | 1.59 | |
| Pounds per Gallon | 13.25 | 13.25 |
| Mix Ratio | | |
| (By Volume) | 1.00 | 1.00 |
| (By Weight) | 100 | 100 |

Shelf Life: (Sealed containers)

One Year @ 25°C (both A+B). Hand agitation of the Resin component is recommended after long standing to ensure best results.

Instructions and Surface Preparation:

Combine the Resin and the Hardener in the ratio listed above. Mix by hand or mechanical mixer until material is uniform in appearance and color (Dark Gray). For best results the unit to be potted should be free of grease or contamination before potting

Cure Schedules:

Within an 8 hour period after application @ 25°C (77°F) will yield 80% of the systems full potential. An additional 96 hours @ 25°C (77°F) will yield the systems full potential. Post curing or forced air curing for 4 hours at 85°C will yield a full cure and eliminate the additional waiting time at ambient temperature.

| | | | | |
|------------|-------|---------|----|-------|
| | 80% | 100% | or | 100% |
| Cure Temp: | 25°C | 25°C | | 85°C |
| Cure Time: | 8 hrs | 104 hrs | | 4 hrs |

Pot Life (450 grams) @ 25°C = 1 Hour

Cured Properties:

| | |
|--|-----------------------|
| Shore Hardness, measured @ 25°C | >80D |
| Lap Shear, Tensile Strength | |
| Al/Al ASTM D-1002: | >2000psi. |
| Compressive Strength: | >1200psi |
| Flexural Strength: | >7800psi |
| Coefficient of Linear Thermal Expansion (in/in°C): | |
| | 80 x 10 ⁻⁶ |
| Operating Temperature Range: | 0°C to +100°C |
| Cured Shrinkage: | 0.001 in/in |

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 the surrounding materials.

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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