



TECHNICAL DATA SHEET



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

NOELLE I805-99

A One Component Encapsulant and Insulating Compound

Description:

Noelle I805-99 is a one component high performance electronic encapsulant and insulating compound.

Noelle I805-99 can also be used as a B stage structural adhesive for bonding dissimilar substrates.

Advantages:

Noelle I805-99 will cure at temperatures as low as 120°C. It features excellent chemical, heat and moisture resistance, and also exhibits class F (155°C) continuous operating service.

B Stage:

Apply adhesive to substrates to be bonded and Gel adhesive @ 105°C for ten minutes or until adhesive is dry and tack free to the touch. These parts or assemblies may be stored in a sealed environment until full cure or final assembly is required.

Then follow the recommended cure schedule listed on this technical bulletin.

Physical Properties:

Color:	Lt. Brown
Pounds per Gallon	8.99
Specific Gravity	1.08
Viscosity (spindle # 5 @ 5rpm)	15,000 cP

Shelf Life: (Sealed container)

Three Months @ 25°C
Six Months @ -10°C
One Year @ -40 °C

Cure Schedules:

(Longer times or higher temperatures will further enhance end properties.)

Cure Temp:	120°C	150°C	160°C
Cure Time:	30 min.	10 min.	5min.

Cured Properties:

Shore Hardness, measured @ 25°C:	86D
Volume Resistivity, Ohm/cm @ 25°C:	1.0 x 10 ¹⁴
Ohm/cm @ 130°C:	4.0 x 10 ¹⁰
Lap Shear, Tensile Strength Al/Al ASTM D-1002:	>2736 psi.
Coefficient of Linear Thermal Expansion (in/in°C):	60 x 10 ⁻⁶
Dielectric Strength VPM @ 25°C:	425
Dissipation Factor 100 Hertz @ 25°C:	0.091
Glass Transition Temperature (t _g):	>120°C
Modulus @ 25°C	4.9 x 10 ⁹ Pa
@ 180°C	8.9 x 10 ⁷ Pa
Water Absorption	1.7 %

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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