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

TECHNICAL DATA SHEET

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

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 Temperature:	120°C	150°C	160°C
Cure Time (minutes):	30	10	5

Cured Properties:

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