



# TECHNICAL DATA SHEET



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

## NOELLE 805-53

### A One Component Encapsulant and Insulating Compound

#### Description:

Noelle 805-53 is a one component heat cured, slightly thixotropic, 100% solids, liquid encapsulant and insulating compound. Noelle 805-53 can also be used as a structural adhesive for bonding dissimilar substrates.

#### Advantages:

Noelle 805-53 will cure at temperatures as low as 100°C. It features excellent chemical, heat and moisture resistance, and also exhibits class B (130°C) continuous operating service.

#### Physical Properties:

|                   |       |
|-------------------|-------|
| Color:            | Black |
| Pounds per Gallon | 10.10 |
| Specific Gravity  | 1.21  |

#### 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: | 100°C   | 120°C  | 160°C  |
| Cure Time: | 30 min. | 15 min | .3min. |

#### Cured Properties:

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