



# TECHNICAL DATA SHEET

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

## NOELLE E903-12

### A One Component Electrically Conductive Liquid Adhesive

#### **Description:**

Noelle E903-12 is a electrically conductive, one component high performance liquid adhesive for lid sealing and die bonding. Noelle E903-12 can also be used as a structural adhesive for bonding dissimilar substrates.

#### **Advantages:**

Noelle E903-12 will cure at temperatures above 120°C. Noelle E903-12 features excellent chemical, heat and moisture resistance. It also exhibits class F (155°C) continuous operating service.

#### **Shelf Life:** (Sealed container)

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

#### **Physical Properties:**

Color: Silver  
Pounds per Gallon: 33.73  
Specific Gravity: 4.05  
Viscosity: Paste

#### **Cure Schedules:**

Longer times or higher temperatures will further enhance end properties.

Cure Temp:	120°C	150°C	160°C
Cure Time:	60 min.	30 min.	10 min.

#### **Cured Properties:**

Shore Hardness, measured @ 25°C: 86D  
Volume Resistivity, @ 25°C (Ohm-cm):  $1 \times 10^{-4}$  \*  
\* @ 160°C (After cure)  
Lap Shear, Tensile Strength  
Al/Al ASTM D-1002 (psi): >2800  
304SS/304SS ASTM D-1002 (psi): >2900  
Coefficient of Linear Thermal Expansion  
(in/in°C):  $45 \times 10^{-6}$   
Glass Transition Temperature ( $t_g$ ): >140°C  
Modulus, @ 25°C (Pa)  $2.18 \times 10^9$   
@ 180°C (Pa)  $2.52 \times 10^7$   
Water Absorption (Maximum) 1.2%

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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