



# TECHNICAL DATA SHEET

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

## NOELLE 804-49

### A One Component Structural Epoxy Adhesive

#### **Description:**

Noelle 804-49 is a one component, aluminum filled, high temperature, non sag, structural epoxy adhesive. Noelle 804-49 was specifically engineered to meet the rigorous requirements of bonding materials to metal housings. Even the most difficult zinc phosphate surfaces have been successfully bonded using this adhesive. Noelle 804-49 can also be used as a structural adhesive for bonding dissimilar substrates.

Noelle 804-49 is the convection oven version of 804-18

#### **Advantages:**

Noelle 804-49 offers excellent thermal stability over a broad temperature spectrum. High bond strength in the 120-180°C range; It features excellent solvent, water, and salt resistance; flexibility, as well as impact resistance; and thermal conductivity are some of the unique attributes of this adhesive.

#### **Physical Properties:**

Color: Metallic gray  
Pounds per Gallon 12.0  
Specific Gravity 1.44

#### **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):	60	10	15

#### **Cured Properties:**

Shore Hardness @ 25°C: 85D  
@ 121°C: 75D  
Lap Shear,  
Al/Al ASTM D-1002 (psi): 3170  
304SS/304SS ASTM D-1002 (psi): 4000  
Tensile Strength (psi): >6400  
Coefficient of Linear Thermal Expansion  
(in/in°C):  $7.0 \times 10^{-5}$   
Glass Transition Temperature ( $t_g$ ): >120°C  
Sag Resistance mils (TP 102)  
Initial @ 160°C 370-400  
After 4 days @ 40°C 440  
Press Flow at 42.5 psi  
@ 25°C (TP 101) (seconds) 60 – 80  
After 4 days @ 40°C (seconds) 70 – 90  
Water Absorption <0.5 %

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.

• 76 Treble Cove Road, Building # 3, Unit C, North Billerica, MA 01862

• Phone: (978) 439-9841 • Fax: (978) 439-9842 • Website: [www.noelleindustries.com](http://www.noelleindustries.com) • email: [info@noelleindustries.com](mailto:info@noelleindustries.com)