



TECHNICAL DATA SHEET

Noelle Industries, Inc.

Adhesives • Coatings • Conductives • Encapsulants

NOELLE 904-45

STRUCTURAL REACTIVE ACRYLIC ADHESIVE

Description:

Noelle 904-45 is a low viscosity, modified methacrylate adhesive system, which has good toughness, strength, temperature and solvent resistance on durable substrates. 904-45 is a fast cure product with fixturing in 45-60 seconds at 23 °C when used with A4 activator for a no-mix application.

Advantages:

Cured performance shows excellent adhesion and bond strength to all durable substrates including aluminum, stainless steel, steel, galvanized surfaces, copper alloys, ceramic and hard reinforced plastics. This material can withstand high temperature service, thermal cycling and shock loading in a temperature range of -65 ° to 300 °F. This product can be also heat cured at 250 °F within 30 minutes exposure at the bond line. The ultimate bond strength is reached after 24 hours @ 23°C

BASE RESIN:

Modified urethane acrylate
100% PERCENT SOLIDS:

BENEFITS OF ADHESIVES:

- Blend of toughness and durability
- Excellent adhesion to a variety of durable substrates
- Medium Viscosity for good wetting and gap filling
- 100% solids formulation for VOC compliance
- High temperature service
- Fast set up and excellent gap cure

PHYSICAL PROPERTIES:

TYPICAL UNCURED PROPERTIES (liquid)

Standard Color:	Amber
Specific Gravity:	1.08 (20/20 C)
Viscosity:	10,000-15,000 cps
Flashpoint:	98 °C
Elongation:	40%
Toxicity:	moderate (see MSDS)
Fillers:	None
Clean-up Solvents:	MEK
Solvents:	None

TYPICAL CURED PROPERTIES

Shore D Hardness:	68
Metal Bonding:	>3000 psi on steel
Thermal Service Range:	-65 °F – 300 °F
Solvent Resistance:	Excellent
Ceramic Bonding:	Excellent
Heat Cure:	Heat cure at 130°C for 30 minutes to obtain the best results. Lower temperatures to 110 °C will take longer time - higher temperatures will reduce cure time. Do not exceed 175 °C.

No Mix: Use activator SVF on one surface and adhesive on the other. Assemble with light pressure to create minimum gap and hold for 1 minute to firmly fixture. Fixture time depends on the gap. For larger gaps, prime both sides.

Shelf Life: (Sealed container)

6 months at 23 °C when stored and sealed in the original containers, 18-24 months when refrigerated at 5°C.

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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Noelle Acrylic Activator Selector Guide

DESCRIPTION:

Noelle reactive acrylic activators are designed to provide fast fixture speed. These products have the capability to produce tough, durable bonds with outstanding impact and peel strength.

TYPICAL APPLICATIONS:

These activators are used to cure Noelle reactive acrylic adhesives (R1, R2, R2T and 904-45). These products were designed for permanent tough bonds for DC motors, speakers and other structural components.

Activator	Fixture Time	Recommended Gap	Specific		
			Gravity	Color	Viscosity
A1	2 min.	0.010 or less	.98	Amber	<100 cps
A2	60 sec.	0.010 or less	.99	Amber	<100 cps
A3	30-45 sec.	0.010 or less	.99	Amber	<100 cps
A4	20-30 sec.	0.010 or less	.99	Amber	<100 cps

Typical Cure Speed

50% Ultimate Strength	15 minutes
90% Ultimate Strength	4 hours
100% Ultimate Strength	24 hours

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