

EPOXY 102309-1

ONE-PART, TOUGHENED EPOXY BASED POLYMER

TECHNICAL DATA

Product Description

Epoxy 102309-1 is a medium viscosity epoxy resin system designed for industrial adhesive, small electrical potting and laminating applications where fast process cure is required. This polymer can be heat cured in less than 10 minutes at 120C. Once fully cured Epoxy 102309-1 provides excellent electrical insulation and it can be used as an adhesive for metals and most plastics. It exhibits excellent resistance to moisture, acid, bases, and most organic solvents.

APPLICATIONS	FEATURES	RECOMMENDED SUBSTRATES
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- Electrical potting
- Laminating
- Industrial adhesion

- One part
- Moisture and chemically resistant
- Fast, heat cure
- High fracture toughness
- Low shrinkage

UNCURED PROPERTIES*		
Property	Value	Test Method
Solvent Content	No Nonreactive Solvents	N/A
Chemical Class	Epoxy	N/A
Color	Black	N/A
Specific Gravity	1.22	TFTEST002
Viscosity @ 25C, 10 RPM, cps	30,000	TFTEST001
Viscosity @ 25C, 20 RPM, cps	30,000	TFTEST001
Viscosity @ 25C, 50 RPM, cps	28,000	TFTEST001
Viscosity @ 25C, 100 RPM, cps	25,000	TFTEST001

CURED MECHANICAL PROPERTIES*		
Property	Value	Test Method
Hardness, Shore D	83	TFTEST012
Water Absorption, 2 hrs boiling water, %	1.8	N/A
Water Absorption, 7 days room temp water, %	0.63	N/A
Operating Temperature Range, C	-60 to 155	N/A
Tensile Strength, psi	5,560	N/A
Tensile Lap Shear, Al/Al, psi	2,800	N/A
Shrinkage, %	1.6	N/A
Elongation, %	3.3	N/A
Glass Transition Temperature, C	56	N/A
Coefficient of Thermal Expansion, pre T _g , K ⁻¹	45 * 10 ⁻⁶	N/A
Coefficient of Thermal Expansion, post T _g , K ⁻¹	120 * 10 ⁻⁶	N/A
Dielectric Strength, Volts/mil	>500	N/A
Dissipation Factor, 1 MHz	0.02	N/A

CURE OVERVIEW*		
Property	Value	Test Method
Work Life @ room temperature, month	3	N/A
Cure Time @ 80C, 10g, hr	1	N/A
Cure Time @ 125C, 10g, min	10	N/A

Storage:

Store material in cool, dry location at a temperature between 2°C to 8°C. Refer to packaging specific quote for shelf life information. Consult MSDS for safe handling recommendations.

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