

Technical Data Sheet Tuffbond[®] 323

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Product Description

Hernon[®] Tuffbond[®] 323 is a flexible, low viscosity, general purpose resin system used for casting, potting, and encapsulating of electrical and electronic components. This unique product has been formulated to combine ease in handling with optimum physical, thermal and electrical insulation properties.

Typical Applications

- Potting electronic boards
- Encapsulating electrical and electronic components
- Transformers
- Coils and chokes
- Solenoids
- Micro circuitry

Product Benefits

- Low viscosity
- Low shrinkage
- High tensile and compression strength
- High impact resistance
- Room temperature or heat curing

Typical Properties (Uncured)

Property	Part A	Part B
Base	Epoxy	Modified Amine
Appearance	Black	Pale Yellow
Viscosity at 25°C, cP	900 to 2,000	500 to 1,000
Specific Gravity	1.11	0.99
Mix Ratio, by Volume	1	1

Typical Properties (Cured)

Physical Properties

Property	Value
Working Life at 22°C (150g), minutes	35
Durometer Hardness, Shore A	65
Coefficient of thermal expansion, K ⁻¹	28.5 x 10 ⁻⁶
Coefficient of thermal conductivity, Btu-in/hr-ft ² -F ^o	4.5
Tensile Strength at Break, psi	350
Modulus, psi	365
Elongation at Break, %	87
Operating Temp., °F	-60 to 250

Electrical Properties

Property	Value
Dielectric Strength, V/mil	460
Dielectric Constant at 60 Hz	4.6
Dissipation Factor at 60 Hz	0.02
Volume Resistivity, Ω·cm	3.5 × 10 ¹⁴

Typical Cured Performance

Shear Strength

Steel lap-shear specimens tested according to ASTM D1002.

Conditioning	Shear Strength
Cured 24 Hours at 22°C	341 psi
After 100 hours at 150°C	1100 psi

General Information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Directions For Use

1. For best results, make sure parts are clean and dry.
2. Mix the product (A&B) until a uniform color is achieved.
3. Apply completely mixed adhesive to the prepared surfaces.

Storage

Tuffbond® 323 should be stored in a cool, dry location in unopened containers at a temperature between 46°F to 82°F (8°C to 28°C) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused material, do not return any material to its original container.

Dispensing Equipment

Hernon® offers a complete line of semi and fully automated dispensing equipment. Contact **Hernon® Sales** for additional information.

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