

Technical Data Sheet Tuffbond 323

April 2006

Page 1 of 1

Product Description

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

Typical Applications

- Electronic encapsulation and potting
- 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 ⁰	4.5
Tensile Strength at Break, psi	350
Modulus, psi	365
Elongation at Break, %	87
Operating Temp., °F	-60 to 350

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 x 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.

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. HERNON MANUFACTURING[®], INC. shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith. Hernon's Quality Management System for the design and manufacture of high performance adhesives and sealants is registered to the ISO9001:2000 Quality Standard.