HERNON®
Formulating Solutions

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Tuffbond® 321

Product Description

Hernon® Tuffbond® 321 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
- Clear and flexible
- Room temperature or heat curing

Typical Properties (Uncured)

Property	Part A	Part B
Base	Epoxy	Modified Mercaptan
Appearance	Clear	Light Yellow
Viscosity at 25ºC, cP	10,000 to 16,000	10,000 to 16,000
Specific Gravity	1.17	1.15
Mix Ratio, by Weight	1	1

Typical Properties (Cured)

Property	Value
Working Life at 22ºC (100g), hours	3 to 4
Cure Time @ 22°C (100 g), hours	24
Durometer Hardness, Shore A (24 hours)	25 – 35
Tensile Strength, psi, ASTM D638	24.25
Modulus, psi	16.44
Elongation, tensile strain at break, %	189.34
Operating Temperature*, ºC	5 to 70

Typical Cured Performance

Shear Strength

Lap-shear specimens tested according to ASTM D1002.
Cured 24 Hours at 22ºC

Substrates	Shear Strength (psi)
Grit-blasted Steel	100 – 500
Grit-blasted Aluminum	100 – 500
FR-4	100 – 500

Block Shear Strength

Block-shear specimens tested according to ASTM D4501.
Cured 24 Hours at 22ºC

Conditioning	Shear Strength (psi)
Polycarbonate/Polycarbonate	75-150
Glass/Glass	400

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 Safety Data Sheet (SDS).

Directions for Use

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

Storage

Tuffbond® 321 should be stored in a cool, dry location in unopened containers at a temperature between 45ºF to 85ºF (7ºC to 29ºC) unless otherwise labeled. 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.