

## 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 25°C, 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 22°C (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*, °C	5 to 70

### Typical Cured Performance

#### **Shear Strength**

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

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 22°C

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 45°F to 85°F (7°C to 29°C) 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.

# Hernon® Technical Data Sheet

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