

## Tuffbond® 315

### Product Description

**Heron® Tuffbond® 315** is a modified epoxy adhesive that provides a fast room temperature cure. **Tuffbond® 315** exhibits very good moisture chemical and heat resistance. This fast cure epoxy adhesive is specially formulated for rapid in-line assembly of loudy speakers. **Tuffbond® 315** is also recommended for bonding metals, wood, ceramics, etc., and can be used for potting and encapsulation of electrical and electronic components.

### Typical Applications

- Bonding voice coil to cone
- Bonding pole piece to magnet
- Bonding alnico magnet to base
- Rapid curing structural and electrical repair kit
- Rapid curing laminates and “gel” coats
- Potting electronic boards
- Encapsulating electrical and electronic components

### Product Benefits

- Fast at room temperature (about 15 minutes)
- Low shrinkage
- 100% reactive, non-solvent system
- Easy mixing ratio of resin and hardener
- No fuming on gelation

### Typical Properties (Uncured)

Property	Part A	Part B
Base	Epoxy	Amine
Appearance	Clear	Yellow
Viscosity at 25°C, cP	11,000 to 16,000	6,000 to 12,000
Mix Ratio by Weight	1	1
Specific Gravity	1.17	0.97

### Typical Properties (Cured)

Property	Value
Working Life at 22°C (20g), minutes	≤ 15
Durometer Hardness, Shore D	80-85
Glass Transition Temperature, (Tg) °C	45
Coefficient of Thermal Expansion, ASTM D696 (K <sup>-1</sup> ) :	
Below Tg	2 x 10 <sup>-5</sup>
Above Tg	2 x 10 <sup>-4</sup>
Tensile Strength, psi, ASTM D638	4282.01
Modulus, psi	190,863.48
Elongation, tensile strain at break, %	8.45

### 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	2000 – 3000
Grit-blasted Aluminum	1500 - 2500
FR-4	1000 – 1500

#### Block Shear Strength

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

Conditioning	Shear Strength (psi)
Polycarbonate/Polycarbonate	500-1000
Glass/Glass	200-400

### 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).**

#### Storage

**Tuffbond® 315** 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. 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.

# Hernon® Technical Data Sheet

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### Dispensing Equipment

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

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