HERNON®
Formulating Solutions

121 Tech Drive, Sanford FL 32771
PH: 407-322-4000 / 800-527-0004
HERNON.com

Tuffbond® 315

Product Description

Hernon® 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 25ºC, 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 22ºC (20g), minutes	≤ 15
Durometer Hardness, Shore D	80-85
Glass Transition Temperature, (Tg) ºC	45
Coefficient of Thermal Expansion, ASTM D696 (K^{-1}) :	
Below Tg	2×10^{-5}
Above Tg	2×10^{-4}
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 22ºC

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 22ºC

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 45ºF to 85ºF (7ºC to 29ºC) 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.