HERNON®
High Performance Adhesives and Sealants
ISO 9001 Registered

121 Tech Drive
Sanford, FL 32771
(407) 322-4000
Fax: (407) 321-9700
www.hernon.com

Technical Data Sheet
Tuffbond® 302

Product Description

Hernon® Tuffbond® 302 is a modified epoxy adhesive that provides a very fast room temperature cure. **Tuffbond® 302** exhibits very good moisture chemical and heat resistance. This very fast cure epoxy adhesive is specially formulated for rapid in-line assembly of loud speakers. **Tuffbond® 302** is also recommended for bonding metals, wood, ceramics, etc., and can be used for potting and encapsulation of electrical and electronic components.

Typical Applications

- Potting of fiber optic cables
- 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

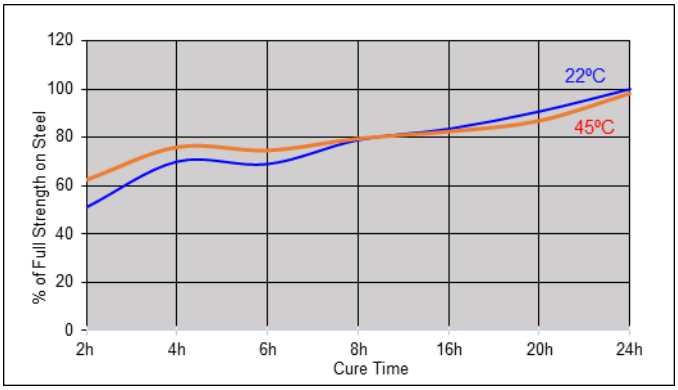
- Fast cure at room temperature (about 5 minutes)
- Low shrinkage
- 100% reactive, non-solvent system
- Easy mixing ratio of resin and hardener
- No fuming on gelation

Typical Propertiets (Uncured)

Property	Part A	Part B
Base	Epoxy	Amine
Appearance	White	Clear - Light amber
Viscosity at 25ºC, cP	50,000 to 60,000	50,000 to 60,000
Mix Ratio by Weight	1	1
Specific Gravity	1.18	1.13

Cured Speed vs Temperature

Shear Strength on steel lap-shear specimens tested at 22ºC, according to ASTM D1002.



Typical Properties (Cured)

Property	Value
Working Life at 22ºC (20g), minutes	≤ 5
Durometer Hardness, Shore D	85 - 90
Glass Transition Temperature, (Tg) ºC	52
Operating Temperature, ºC	-54 to 85
Coefficient of thermal conductivity, ASTM C 177, W/(m·K)	0.567
Coefficient of thermal expansion, ASTM D696 (K^{-1}) :	
Below Tg	18 x 10^{-6}
After Tg	240 x 10^{-6}

Typical Cured Performance

Shear Strength on lap-shear specimens tested according to ASTM D1002.

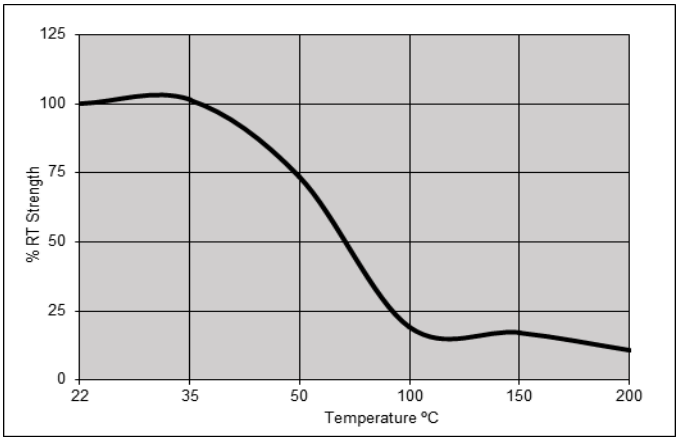
Cure Time at 22ºC	Shear Strength (psi)
24 Hours (Aluminum)	1000 - 2000
24 Hours (Steel)	1500 - 2500

Typical Environmental Resistance

Shear Strength on steel lap-shear specimens tested according to ASTM D1002. Cured for 72 hours at 22ºC.

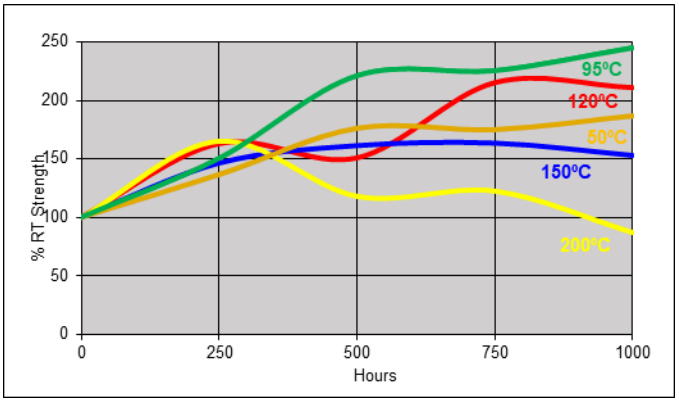
Hot Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested at 22ºC.



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® 302 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.