

Technical Data Sheet Tuffbond[®] 309

December 2009

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Product Description

Hernon[®] Tuffbond[®] 309 is a specially formulated single component epoxy system which cures at temperatures of 212°F (100°C) and above. It has excellent storage stability and produces tough, flexible bonds with superior shear strengths when used on metals, ceramics and many plastics. Optimum strength can be obtained after ten to twelve minutes cure at 300°F (149°C).

Product Benefits

- Excellent adhesion
- One part - no mixing
- Good mechanical properties

Typical Properties (Uncured)

Property	Value
Resin	Epoxy
Color	Black
Viscosity @ 25°C, cP	230,000 to 260,000
Specific gravity	1.20
Flash point	See MSDS

Curing Characteristics

Tuffbond[®] 309 can be cured by infra-red or convection oven. Cure time will depend on the bondline temperature.

Cure Time

Bondline Temp., °F (°C)	Cure Time, minutes
212 (100)	70 to 80
300 (149)	10 to 12
350 (177)	5 to 7
375 (194)	3 to 4

Typical Cured Performance

Shear Strength, ISO 4587
Cured 12 minutes at 150°C

Substrate	Shear Strength, N/mm ² (psi)
Aluminum	11.7 (1700)

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 Material Safety Data Sheet (MSDS).

Directions for Use

1. To obtain maximum strength, the surface to be bonded should be clean and dry. Paint, grease, and oil can be removed by using Hernon[®] EF[®] Cleaner 62 or similar solvents. Special treatment, such as etching, is recommended for maximum possible bond strength.
2. Apply Tuffbond[®] 309 to the surface to be bonded and press together. Recommended bond thickness is between 0.002 and 0.008 in. (0.05-0.20mm). Light clamping may be used to hold the parts together during the cure.

Storage

Tuffbond[®] 309 must be stored under refrigeration at a temperature of 35 to 40°F for extended shelf life. 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.

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