

## Technical Data Sheet Tuffbond<sup>®</sup> 395

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### Product Description

**Hernon<sup>®</sup> Tuffbond<sup>®</sup> 395** is a single component, high temperature resistant, heat activated epoxy. It cures to a high performance thermoset system with excellent adhesion properties to a wide variety of substrates. **Tuffbond<sup>®</sup> 395** will change from amber-yellow to a reddish brown upon cure.

Bonding the voice coil to the cone has been a challenge for engineers, specifically when the adhesive temperature resistance requirement is above 200°F (93°C). Two component epoxy has been most commonly used for this application, but limitations such as mixing ratio, cure speed, potential solidification in equipment and static mixers and the need for equipment flushing solvents have made **Tuffbond<sup>®</sup> 395** more practical.

### Product Benefits

- High temperature resistance.
- Single component (no mixing, no pot life).
- Solventless.
- Cures on demand (heat cure).
- Will not slip during cure.
- Fast setting: 1.5 minutes at 150°C bondline.
- Changes color upon cure (yellow to brown).
- Excellent adhesion to various substrates.
- Gives high shear.
- Low water absorption.
- Very rigid.
- Low density.
- No porosity upon cure.

### Typical Properties (Uncured)

Property	Value
Resin	Epoxy
Appearance	Amber-yellow paste
Viscosity @ 25°C, cP	340,000 to 370,000
Specific gravity	1.23
Flash point	See MSDS

### Curing Characteristics

**Tuffbond<sup>®</sup> 395** can be cured by infra-red or convection oven. Cure time will depend on the bondline temperature.

Temperature, °C (°F)	Cure Time, minutes
150 (300)	≤1.5
100 (212)	≤10

### Typical Properties (Cured)

Property	Value
Heat Resistance, °C (°F)	204 (400)
Elongation, %	6.1

### Typical Cured Performance

Shear Strength, ISO 4587  
Cured 5 minutes at 150°C

Substrate	Shear Strength, N/mm <sup>2</sup> (psi)
Steel	13.8 (2000)
Aluminum	12.4 (1800)

### Typical Environmental Resistance

#### **Chemical/Solvent Resistance**

Shear Strength, gritblasted steel, ISO 4587  
Cured 2 minutes at 150°C  
30 days immersion in chemical/solvent

Chemical/Solvent	% Initial Strength Retained
Water	100
Sulfuric Acid	99
Ammonia, 25%	99
Methanol	97
Xylene	98

## 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).

## **Storage**

**Tuffbond® 395** 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**

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

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