

Technical Data Sheet Tuffbond[®] 42691

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Product Description

Hernon[®] Tuffbond[®] 42691 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. The rapid curing mechanism of 1.5 minutes at 300°F (149°C) makes it ideal for production line use.

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 300°F (149°C).
- Excellent adhesion to various substrates.
- Gives high shear strength
- Low water absorption.
- Very rigid.
- Low density.
- No porosity upon cure.

Typical Properties (Uncured)

Property	Value
Resin	Epoxy
Appearance	Black
Viscosity @ 25°C, cP	10,000 to 20,000
Specific gravity	1.19
Flash point	See MSDS

Curing Characteristics

Tuffbond[®] 42691 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
120 (250)	2.5
100 (212)	7

Typical Properties (Cured)

Test Specimens Cured 5 minutes @ 300°F (149°C)

Property	Value
Shear Strength, Steel, psi, ASTM D1002	1500
Heat Resistance, °C	204
T _g , °C, ASTM E228	94
CTE, ppm/°C, Below T _g	60
ASTM D696 Above T _g	190

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[®] 42691 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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