

## Technical Data Sheet ReAct<sup>®</sup> 784

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### Product Description

**Hernon<sup>®</sup> ReAct<sup>®</sup> 784** has excellent bond strength as a structural adhesive. This formulation will offer rapid, high strength and high impact resistant bonds to a variety of substrates within minutes. Designed for a wide variety of substrates.

**ReAct<sup>®</sup> 784** is a room temperature curing adhesive, used in combination with **Hernon<sup>®</sup> EF<sup>®</sup> Activator 15**. This no-mix system allows controlled assembly ideal for production and repair applications. A structural bond develops within minutes.

### Typical Properties (Uncured)

Property	Value
Resin	Methacrylate ester
Appearance	White
Viscosity @ 25°C, cP	17,000 to 28,000
Specific gravity	1.04

### Typical Curing Properties

Property	Value
Ratio of use	Approximately 10:1 (Adhesive: Initiator)

### Product Benefits

- Conforms to the requirements for IAI specification MS050040E on Aluminum
- Bonds to an exceptionally large variety of substrates including metals, plastics, composites, ceramics, glass, wood, leather, rubber and marble.
- Minimal or no surface preparation.
- 100% solid system
- Simple and inexpensive dispensing equipment.
- No shrinkage due to solvent evaporation.
- Rapid room temperature cure.

### Typical Curing Performance

#### **Cure Speed vs. Substrate**

The rate of cure will depend on the substrate used. The table below shows the fixture time achieved on different materials at 22°C. Fixture time is defined as the time to develop a shear strength of > 0.1 N/mm<sup>2</sup>.

One side primed with a minimal thin layer of **EF 15**.

Substrate	Fixture Time, minutes
G/B Steel	<10
G/B Aluminum	<4

### Typical Cured Performance

Tested on lap-shear specimens in accordance with ASTM D1002.

Cured for 24 hours at room temperature.

One side primed with a minimal thin layer of **EF 15**.

Substrate	Shear Strength, N/mm <sup>2</sup> (psi)
G/B Steel	≥ 20.7 (3000)
G/B Aluminum	≥ 17.2 (2500)
<b>Torque Strength, 3/8 X 16 Steel Nuts and Bolts, 24 hr cure (React 784 applied to bolt and EF Activator 15 to nut)</b>	
Breakaway	200-350 in-lb
Prevailing	100-250 in-lb

### **Block- Shear Strength**

Cured 24 Hours @ 22°C - tested according to ASTM D4501.

One side primed with a minimal thin layer of **EF 15**.

Substrate	Shear Strength (psi)
Phenolic	329
ABS	1179
Epoxy Glass	654
Acrylic	591
Polycarbonate	357
PVC	805

### **Directions for Use**

1. **ReAct<sup>®</sup> 784** is useable on a wide variety of surfaces. Substrates should be clean, dry and free of heavy grease. Acid etching or abrading the surface to be bonded may enhance the adhesive properties.
2. Apply a minimal thin layer of **EF<sup>®</sup> Activator 15** to one surface.
3. Apply adhesive to the other surface to be bonded.
4. Join surfaces using sufficient force to spread adhesive thinly. Join parts within two hours of

applying primer. Minimizing the on-part time of the primer maximizes consistency in performance.

5. Maintain pressure until handling strength is achieved. Handling strength varies with part geometry, substrate, surface area, tolerances, etc.
6. Release pressure and allow 24 hours for adhesive to fully cure.

### **Storage**

**ReAct® 784** should be stored in a cool, dry location in unopened containers at a temperature between 0°F to 85°F (-18°C to 29°C) unless otherwise labeled. Bring material stored at the lower half of this temperature range to room temperature before use. To prevent contamination of unused material, do not return any material to its original container.

### **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).**

### **Dispensing Equipment**

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

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