HERNON®
High Performance Adhesives and Sealants
ISO 9001:2008 Registered

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# Technical Data Sheet
# ReAct® 784



## Product Description

**Hernon**® has taken the excellent bond strength of Fusionbond structural adhesive and merged it with the simplicity of **ReAct**® two-component, no-mix curing system to create **ReAct**® **784**. **ReAct**® **784** is a 100% solids, room temperature cure, versatile 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**® 784 offers excellent temperature and chemical resistance. The two-component, no-mix system allows controlled assembly timing ideal for production and repair applications. Simply apply adhesive to one part and activator to other part and join the assembly. A structural bond will develop within minutes.

## Product Benefits

- Bonds to an exceptionally large variety of substrates including metals, plastics, composites, ceramics, glass, wood, leather, rubber and marble.
- Convenient two-component, no-mix system for rapid production applications
- Minimal or no surface preparation.
- 100% solid system
- Excellent chemical resistance
- Excellent environmental resistance.
- Excellent temperature resistance.
- No pot life
- Simple and inexpensive dispensing equipment.
- No shrinkage due to solvent evaporation.
- Rapid room temperature cure.

## Typical Properties (Uncured)

| Property | Value |
|---|---|
| Resin | Methacrylate ester |
| Appearance | White liquid |
| Viscosity @ 25ºC, cP | 40,000 to 64,000 |
| Specific gravity | 1.04 |
| Flash point | See MSDS |

## 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 22ºC. Fixture time is defined as the time to develop a shear strength of 0.1 N/mm².

Tested on steel and aluminum lap-shear specimens, plastic and glass block-shear specimens. One side primed with thin layer of **EF**® **Activator 15**.

| Substrate | Fixture Time, minutes |
|---|---|
| As Received Steel | 8 |
| As Received Aluminum | 12 |
| Abraded Aluminum | 10 |
| Epoxyglass | 10 |
| Phenolic | 5 |
| PVC | 4 |
| ABS | 4 |
| Acrylic | 10 |
| Polycarbonate | 5 |
| Glass | 22 |

## Typical Cured Performance

Tested on steel and aluminum lap-shear specimens in accordance with ISO 4587, and plastic and glass block-shear specimens in accordance with ISO 13445. Cured for 24 hours at room temperature. One side primed with **EF**® **Activator 15**.

| Substrate | Shear Strength, N/mm² (psi) |
|---|---|
| As Received Steel | 33.4 (4850) |
| As Received Aluminum | 7.2 (1050) |
| Abraded Aluminum | 12.5 (1810) |
| Epoxyglass | 11.9 (1720) |
| Phenolic | 6.9 (995) |
| PVC | 4.9 (710) |
| ABS | 3.0 (430) |
| Acrylic | 7.2 (1040) |
| Polycarbonate | 5.4 (790) |
| Glass | 9.9 (1440) |

## Typical Environmental Resistance

**Chemical/Solvent Resistance**
Aged under condition indicated - Tested at 72ºF (22ºC).

| Chemical/Solvent | Temp (ºC) | % of Initial Strength 1000 h | % of Initial Strength 2000 h |
|---|---|---|---|
| Motor Oil | 66 | 75 | 90 |
| Gasoline | 66 | 95 | 90 |
| Water/Glycol | 66 | 75 | 50 |
| Isopropanol | 22 | 75 | 90 |
| Salt Fog | 35 | 75 | 60 |
| Humidity, 100% RH | 49 | 55 | 35 |

**Directions For Use**

1. **ReAct® 784** is useable on a wide variety of surfaces. Substrates should be free of heavy grease and grinding residues. A chemical conversion coating may enhance adhesive properties and provide maximum corrosion protection on metallic assemblies.
2. Apply a thin layer of **EF® Activator 15** to one surface. Apply adhesive to the other surface to be bonded.
3. Join surfaces using sufficient force to spread adhesive thinly. Join parts within two hours of applying primer (primer on-part life is two hours maximum). Minimizing the on part time of the primer maximizes consistency in performance.
4. Maintain pressure until handling strength is achieved. Handling strength varies with part geometry, substrate, surface area, tolerances, etc.
5. 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 46ºF to 85ºF (8ºC 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.

## 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).**

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