HERNON®
High Performance Adhesives and Sealants
ISO 9001 Registered

121 Tech Drive
Sanford, FL 32771
(407) 322-4000
Fax: (407) 321-9700
www.hernon.com

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 ideal for production and repair applications. A structural bond develops within minutes.

Typical Properties (Uncured)

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

Typical Curing Properties

Property	Value
Ratio of use	Approximately 10:1 (Adhesive: Initiator)
Handling time	2 – 4 minutes
Full Cure	24 hours

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.
- 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 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.

One side primed with a minimal thin layer of **EF® Activator 56 or EF 15**.

Substrate	Fixture Time, minutes
Abraded Steel	<5
Abraded Aluminum	<5
Phenolic	<5
ABS	<4
Acrylic	<10

Typical Cured Performance

Tested on steel and aluminum lap-shear specimens in accordance with ISO 4587, and plastic shear specimens in accordance with ISO 13445. Cured for 24 hours at room temperature.

Substrate	Shear Strength, N/mm² (psi)
Abraded Steel	≥ 20.7 (3000)
Abraded Aluminum	≥ 17.2 (2500)
ABS	≥ 2.4 (350)
Torque Strength, 3/8 X 16 Steel Nuts and Bolts, 24 hr cure 784 applied to bolt and EF Activator to nut	
Breakaway	200-350 in-lb
Prevailing	100-250 in-lb

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 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® Activator 56 or 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 0ºF to 85ºF (-18ºC to 29ºC) 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 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.