

## Technical Data Sheet ReAct<sup>®</sup> 795

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### Product Description

**Hernon<sup>®</sup> ReAct<sup>®</sup> 795** is a tough acrylic adhesive designed primarily for securing of ceramic permanent magnet segments in motor magnet bonding applications. This adhesive has also found wide acceptance in a variety of structural bonding applications due to its versatile performance capabilities.

**ReAct<sup>®</sup> 795** has demonstrated the ability to provide high tensile strength while maintaining excellent product flexibility. This results in tough, durable bonds with outstanding impact and peel resistance.

This tough acrylic is a single component, room temperature curing adhesive which is used in conjunction with **Hernon<sup>®</sup> EF<sup>®</sup> Activator 47**.

Additionally, exposure to a high intensity UV light will cure this adhesive to a dry, hard surface.

### Product Benefits

#### **Improved Reliability**

- High impact and shock resistance
- Temperature resistance: -40 to 300°F (-40 to 149°C)
- Good gap filling properties.
- Excellent adhesion to a variety of surfaces.
- Consistent rate of cure from 60 to 100°F (16 to 38°C)
- Consistent bond strength

#### **Improved Processing**

- Fast fixturing
- No pot life, no mixing
- No waste problems
- Low toxicity
- Low odor
- Thixotropic: facilitates dispensing/applying
- Non-migrating on vertical surfaces
- Increases productivity
- Requires minimal parts cleaning
- Easy clean-up

#### **Cost Effective**

- Requires minimal clamping time and tooling.
- Eliminates high energy cost needed for heat cured materials.
- Eliminates need for mechanical clips

### Typical Applications

- DC motor assembly.
- Magnet bonding.
- Bonding pre-coated sheet metal.
- Bonding ferrites, plastic, and metal wear strips.
- Bonding metals with special surface treatments such as galvanized, phosphate, and dichromate surfaces.

### Typical Properties (Uncured)

Property	Value
Base Resin	Modified Acrylic
Solids	100% - No Solvents
Appearance	Off-White
Specific gravity @ 25°C	1.07
Viscosity @ 25°C, cP	56,000 – 64,000
Flash point	See SDS

### Typical Curing Performance

#### **Fixture Time**

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm<sup>2</sup>.

Tested on steel lap-shear specimens, both sides primed with **EF<sup>®</sup> Activator 47** for gap and tested.

Gap, mm	Fixture Time
0	≤ 25 secs
0.25	≤ 15 mins

#### **Cure Time**

This product is also cured when exposed to UV radiation of 365nm. The speed of cure will depend on the UV intensity as measured at the product surface.

Curing Conditions	Cure Time
LED9, 365nm, at ¼ inch distance	5-10 seconds
US 1000, at ½ inch distance	≤ 5 seconds

### Typical Properties (Cured)

#### **Physical Properties**

Method	Property	Value
ASTM D2240	Durometer Hardness*, Shore D	65-75

\*Cured by EF<sup>®</sup> Activator 47

### Typical Cured Performance

**Shear Strength**

Tested on lap-shear specimens with 1 side primed with **EF® Activator 47** and tested according to ASTM D1002.

Substrate	RT Cure, hours	Shear Strength (psi)
G/B Steel	24	2000-3000
G/B Aluminum	24	≥ 10.3 (1500)

**Block Shear Strength**

Cured by UV radiation and post cured for 24 hours.  
Block- Shear Strength on different specimens  
Tested according to ASTM D4501

Substrate	UV Lamp Type	Shear Strength (psi)
Glass to Steel	LED9, 365nm, 30 sec	≥300
Glass to Steel	US 1000, 30 sec	≥400

**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).**

**Directions for Use**

1. For best performance bond surfaces should be clean and free from grease.
2. To ensure a fast and reliable cure, **EF® Activator 47** should be applied to one of the bond surfaces and the adhesive to the other surface. Parts should be assembled within 15 minutes.
3. The recommended bond line gap is 0.1mm. Where bond gaps are large (up to a maximum of 0.5 mm), or faster cure speed is required, **EF® Activator 47** should be applied to both surfaces. Parts should be assembled immediately (within 1 minute).
4. Excess adhesive can be wiped away with organic solvent.
5. Bond should be held clamped until adhesive has fixtured.
6. Product should be allowed to develop full strength before subjecting to any service loads (typically 24 to 72 hours after assembly, depending on bond gap, materials and ambient conditions).

**Storage**

**ReAct® 727** should be stored in a cool, dry location in unopened containers at a temperature between 45°F to 85°F (7°C to 29°C) 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.

**Dispensing Equipment**

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

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. HERNON MANUFACTURING, INC. shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith. Hernon's Quality Management System for the design and manufacture of high-performance adhesives and sealants is registered to the ISO 9001 Quality Standard.