

## ReAct® 767

### Product Description

**Hernon® ReAct® 767** is a high-performance tough acrylic adhesive designed primarily for securing ceramic permanent magnet segments in motor magnet bonding applications. Used in conjunction with **Hernon® Activator 56/ Activator 47**, this structural adhesive is ideal for choke and transformer bonding, DC motor assembly, alternator and flywheel applications, tacking, unitizing, ruggedizing, sealing and shallow potting.

**ReAct® 767** fixtures in seconds, is acrylic acid free and non-corrosive, non-flammable, and suitable for harsh environments. **ReAct® 767** exhibits good thermal shock, impact and peel resistance characteristics, and excellent adhesion to a wide variety of plated surfaces.

### 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 (18 to 38°C)
- Consistent bond strength
- Non-corrosive

#### 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, Translucent	
Specific gravity @ 25°C	1.08	
Viscosity @ 25°C, cP	DVE, Spindle 6, 2 rpm	50,000 – 70,000
	DVE, Spindle 6, 20 rpm	10,900 – 15,300

### Typical Curing Performance

**ReAct® 767** is designed to be used with **Activator 56** and cured at room temperature. Cure characteristics are measured by determining fixture time (handling time) and speed of cure.

#### 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, 2 sides primed with a minimal thin layer of **Activator 56/ Activator 47**.

Gap, mm	Fixture Time, seconds
0	≤ 25
0.20	≤ 60

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### Cure Speed

The table below shows shear strength developed with time using **Activator 47** on steel lap-shear specimens and tested according to ASTM D1002.

Cure time at RT	Shear Strength, psi
30 minutes	1000-2000
24 hours	1500-2500
48 hours	1800-2800

### Typical Properties (Cured)

Property	Value
Hardness, ASTM D2240, Shore D	55-65

### Impact Strength

Gritblasted lap-shear specimens, 1 in overlap

Substrate	Cure Time at 22°C	Value
Steel	24 hours	≥ 15 Joules
Aluminum	24 hours	≥ 15 Joules

### Typical Cured Performance

#### Shear Strength

Tested on Steel lap-shear specimens with 1 side primed with a minimal thin layer of **Activator 56** and tested according to ASTM D1002.

Cured Time at RT	Shear Strength, psi
30 minutes	1000-1500
24 hours	1500-2500

### Typical Environmental Resistance

Shear Strength, steel lap-shear specimens, 1 side primed with **Activator 56**, cured for 48 hours at 22°C and tested according to ASTM D1002.

### Heat Aging

Aged for 72 hours at temperature indicated and tested at 22°C.

Temperature	Shear Strength, N/mm <sup>2</sup> (psi)
90°C	≥ 20.7 (3000)
120°C	≥ 17.2 (2500)
150°C	≥ 15.2 (2000)

### Chemical/Solvent Resistance

Aged under conditions indicated and tested at 22°C.

Chemical/Solvent	Temp (°C)	% of Initial Strength	
		720 hours	1440 hours
Air Reference	87	100	100
Water Glycol 50/50	87	36	23
Gasoline	22	44	18
Motor Oil	87	100	100

### 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

- For best performance bond surfaces should be clean and free from grease.
- To ensure a fast and reliable cure, **Activator 56** or **Activator 47** should be applied as a minimal thin layer to one of the bond surfaces and the adhesive to the other surface. **Activator 56** Adhesive to primer ratio is approximately 10:1. For **Activator 47** the ratio would be 15:1 up to 20:1 adhesive/ primer ratio.

Parts should be assembled within 15 minutes.

- The recommended bond-line gap is ≤ 0.1mm. Where bond gaps are large (over 0.1mm), or surfaces are porous, **Activator 56/ Activator 47** should be applied to both surfaces. Parts should be assembled immediately (within 1 minute).
- Excess adhesive can be wiped away with organic solvent.
- Bond should be held clamped until adhesive has fixtured.
- 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® 767** 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.

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