

## Technical Data Sheet Gasket Replacer 907

December 2014

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### Product Description

**Hernon® Gasket Replacer 907** is a single component room temperature cure, gel-like anaerobic gasketing compound formulated to provide instant sealing capabilities. Once cured between metal flanges, **Gasket Replacer 907** maintains a thin and rigid seal while providing solvent and temperature resistance.

### Product Benefits

- Instant sealing
- No shrinkage due to solvent evaporations
- Excellent chemical resistance
- Does not migrate or drip
- Can be used on vertical surfaces
- Improves structural integrity of assembly

### Typical Applications

- Fuel tanks
- Rigid Assemblies

### Typical Properties (Uncured)

Property	Value
Resin	Modified methacrylate ester
Appearance	Red paste
Viscosity @ 25°C, cP	165,000 to 500,000
Specific gravity	1.14
Flash point	See MSDS

### Instant Sealing Capability

Anaerobic sealants have the ability to resist low on-line test pressures while uncured. This test was performed with uncured product immediately after assembly of an annular polycarbonate sealing surface with an internal diameter of 50 mm and an external diameter of 70 mm.

Induced Gap, mm	Pressure Resistance, MPa
0	.02
0.125	.01
0.250	.01

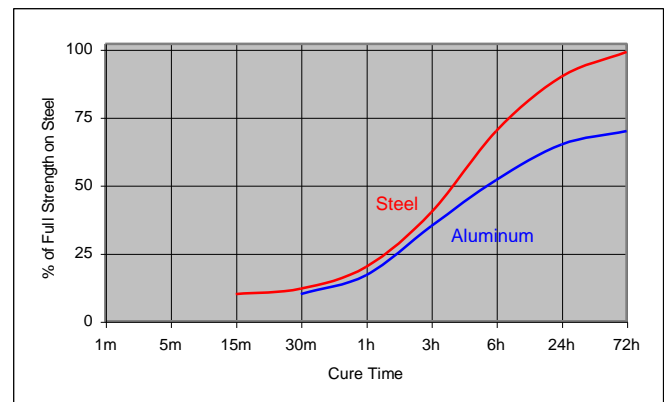
### Typical Properties (Cured)

Property	Value
Coefficient of thermal expansion, ASTM D696 (K <sup>-1</sup> )	80x10 <sup>-6</sup>
Coefficient of thermal conductivity, ASTM C 177, W/(m·K)	0.1
Specific heat, kJ/(kg·K)	0.3
Temperature Range, °C (°F)	-55 to 204 (-65 to 400)

### Typical Curing Performance

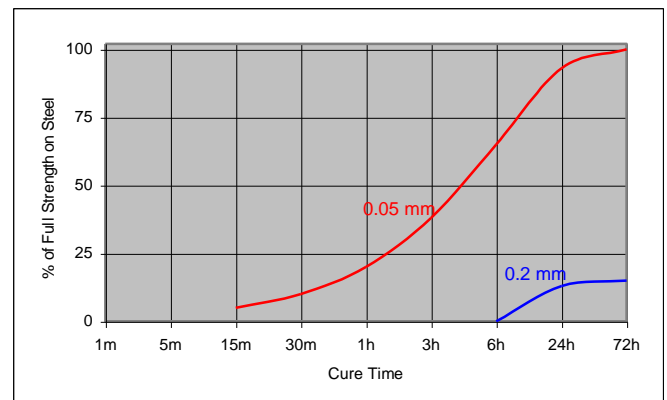
#### Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the shear strength developed with time on gritblasted steel lap shears compared to different materials and tested according to ISO 4587.



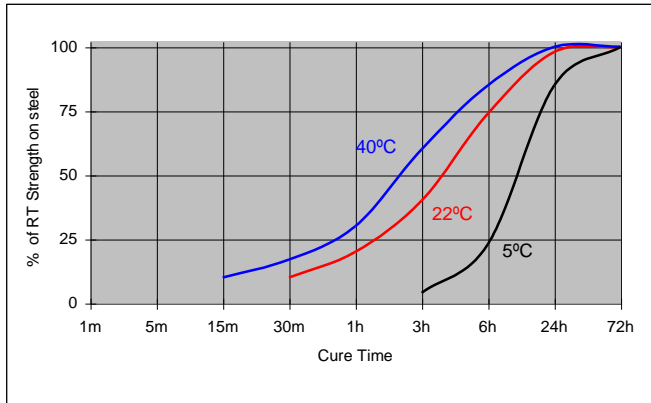
#### Cure Speed vs. Bond Gap

The rate of cure will depend on the bondline gap. The graph below shows the shear strength developed with time on gritblasted steel lap shears compared to different controlled gaps and tested according to ISO 4587.



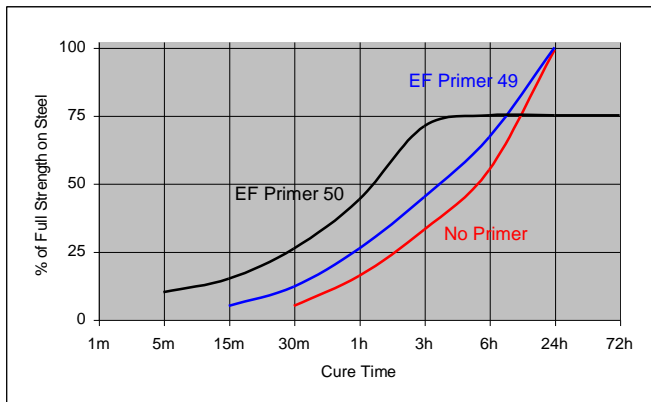
**Cure Speed vs. Temperature**

The rate of cure will depend on the temperature. The graph below shows the shear strength developed with time at different temperatures on grit blasted steel lap shears and tested according to ISO 4587.



**Cure Speed vs. Activator**

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed. The graph below shows the shear strength developed with time on grit blasted steel lap shears using **Hernon® EF® Primer 49** and **EF® Primer 50** and tested according to ISO 4587.



**Typical Cured Performance**

**Adhesive Properties**

Tested on gritblasted steel

Test	Specimen	Cure Time at 22°C	N/mm <sup>2</sup> (psi)
Shear strength ISO 10123	Pin & collar	1Hour	>1 (>145)
		24 Hours	>7.5 (>1085)
Shear strength ISO 4587	Lap-shear	24 Hours	5 (725)
Tensile strength ISO 6922	Tensile pin	24 Hours	>7.5 (>1085)

**Sealing Capability**

An annular shaped gasket with an inner diameter of 50 mm and an external diameter of 70 mm was tested up to 1.3 Mpa for leakage.

Substrate	Sealed to Maximum Induced Gap, mm
Mild steel	≤0.125
Aluminum 2011T3	≤0.125

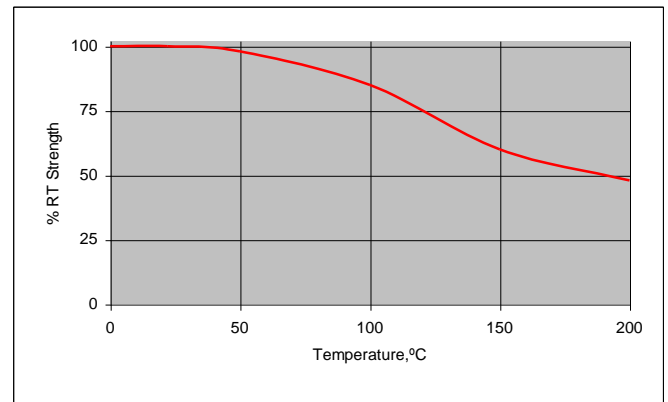
**Typical Environmental Resistance**

The following tests refer to the effect of environment on strength. This is not a measure of sealing performance.

Cured for 1 week @ 22°C  
Lap Shear Strength, ISO 4587  
Gritblasted Steel

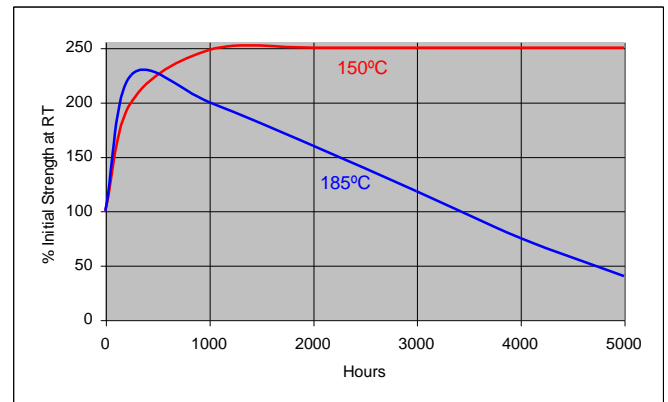
**Hot Strength**

Tested at temperature



**Heat Aging**

Aged at temperature indicated and tested @ 22°C



### Chemical/Solvent Resistance

Aged under conditions indicated and tested at 22°C.

Chemical/Solvent	Temp (°C)	% of Initial Strength	
		100 h	500 h
Motor oil	125	100	100
Gasoline	22	95	60
Water Glycol 50/50	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 Material Safety Data Sheet (MSDS).**

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). Users are recommended to confirm compatibility of the product with such substrates. Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

### Directions for Use

1. For best performance bond surfaces should be clean and free from grease.
2. The product is designed for close fitting flanged parts with gaps up to 0.25 mm.
3. Apply manually as a continuous bead or by screen printing to one surface of the flanges.
4. Low pressures (<0.05 MPa) may be used when testing to confirm a complete seal immediately after assembly and before curing.
5. Flanges should be tightened as soon as possible after assembly to avoid shimming.

### Storage

**Gasket Replacer 907** should be stored in a cool, dry location in unopened containers at a temperature between 46°F to 82°F (8°C to 28°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 9001:2008 Quality Standard.