

Technical Data Sheet Gasket Replacer 906

April 2016

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Product Description

Hernon® Gasket Replacer 906 is a single component room temperature cure gel-like anaerobic gasketing compound formulated to provide instant sealing capabilities. Once cured between mating metal flanges filling voids in the surface, **Gasket Replacer 906** provides a thin, flexible, solvent and temperature resistant seal. **Gasket Replacer 906** can replace or be used as a dressing for conventional gaskets.

Product Benefits

- Instant sealing
- Provides reliable seal
- No shrinkage due to solvent evaporation
- Excellent chemical resistance
- Eliminates need for retorquing

Typical Properties (Uncured)

Property	Value	
Chemical Type	Methacrylate ester	
Appearance	Red gel	
Viscosity at 25°C, cP	TC @ 0.5 rpm	2,400,000 to 2,800,000
	TC @ 5.0 rpm	400,000 to 500,000
Specific gravity	1.13	
Operating Temp Range	-65F to 300F (-53C to 149C)	
Flash point	See MSDS	

Instant Seal

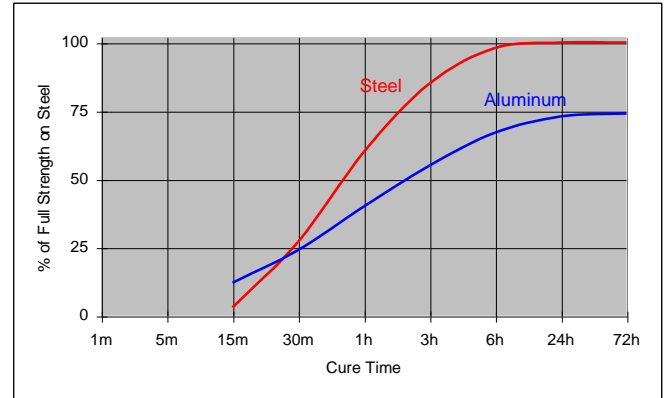
Anaerobic sealants have the ability to resist low on-line test pressures while uncured. This test was performed with uncured product immediately after assembly of an annular polycarbonate sealing surface with an internal diameter of 50 mm and an external diameter of 70 mm.

Induced Gap, mm	Pressure Resistance, MPa
0.000	0.30
0.125	0.15
0.250	0.05

Typical Curing Performance

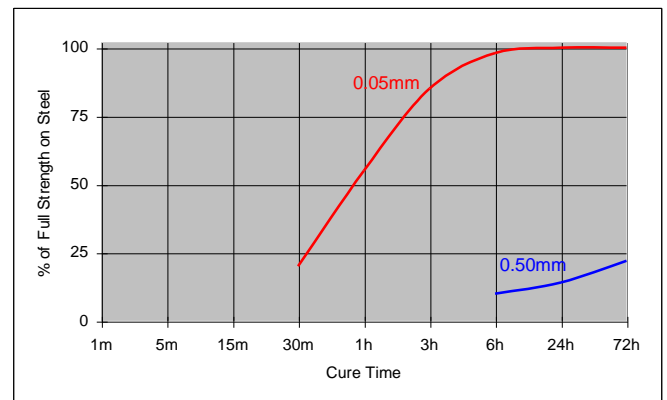
Cure Speed vs. Substrate

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



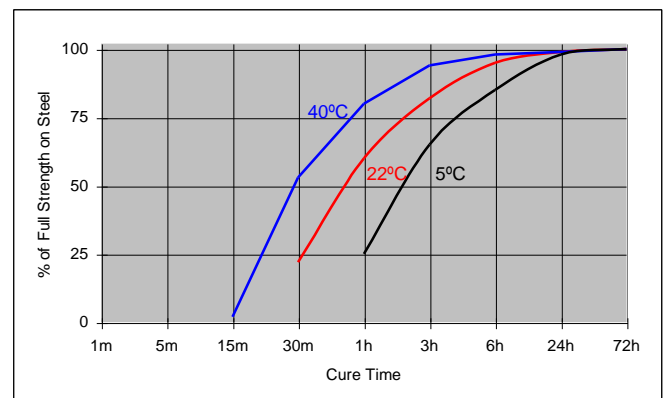
Cure Speed vs. Bond Gap

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



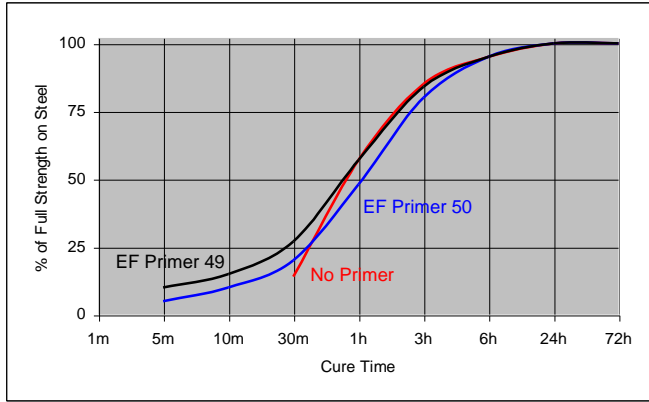
Cure Speed vs. Temperature

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



Cure Speed vs. Primer

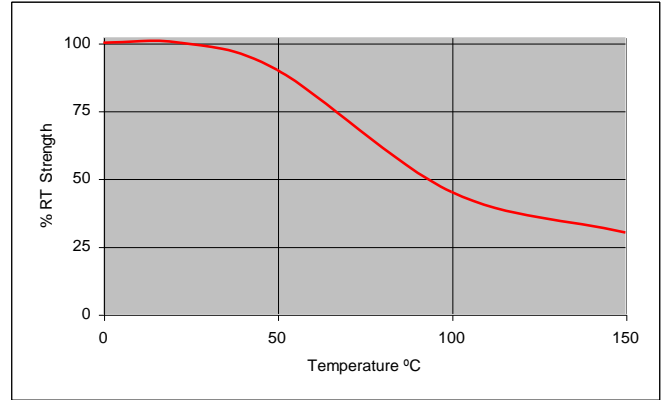
Where cure speed is unacceptably long, or large gaps are present, applying primer to the surface will improve cure speed. The graph below shows shear strength developed with time using **EF® Primer 50** on grit blasted steel lap shears and tested according to ISO 4587.



Cured for 1 week @ 22 °C.
Shear Strength, ISO 4587, grit blasted steel

Hot Strength

Tested at temperature

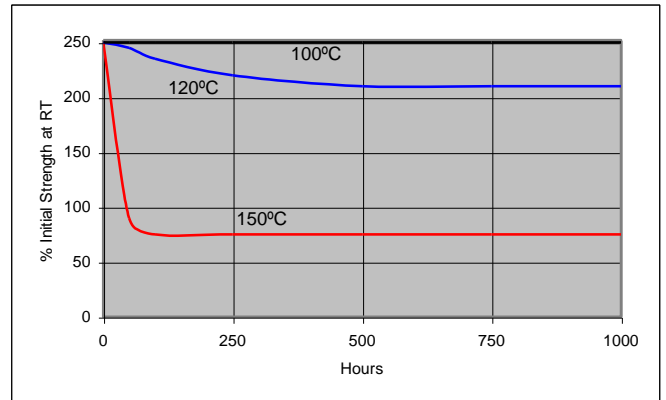


Typical Properties (Cured)

Property	Value
Coefficient of thermal expansion, ASTM D696 (K ⁻¹)	80 x 10 ⁻⁶
Coefficient of thermal conductivity, ASTM C 177, W/(m·K)	0.1
Specific Heat, kJ/(kg·K)	0.3
Maximum Sealing Pressure	5,000 psi
Gap Filing Ability - No Primer W / Primer	0.010 in. (0.254 mm) 0.050 in. (1.35 mm)
Percent Elongation (to 250°F)	30%

Heat Aging

Aged at temperature indicated and tested @ 22°C



Typical Cured Performance

Cured 24 hours at 22°C

Test Method	Test Specimens	N/mm ² (psi)
Shear Strength, ISO 4587	Grit blasted steel Lap-shears	7.5 (1100)
Compressive Shear Strength, ISO 10123	Steel pins and collars	≥5.0 (≥725)
Tensile Strength, ISO 6922	Grit blasted steel pins	≥8.5 (≥1200)

Chemical/Solvent Resistance

Aged under condition indicated - Tested at 22°C.

Chemical/Solvent	Temp (°C)	% of Initial Strength		
		100 h	500 h	1000 h
Water Glycol 50/50	87	100	100	90
Gasoline	22	60	60	55
Motor Oil	125	100	160	140

TYPICAL ENVIRONMENTAL RESISTANCE

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

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). It is recommended to confirm compatibility of the product with such substrates.

Directions For Use

To obtain the best results, clean the parts from contamination such as grease, dirt, and heavy oil. **Hernon® EF® Cleaner 62** or a similar chlorinated solvent can be used to clean parts.

1. **Screen Printing** - complex flange surfaces and shapes can be coated in seconds using specially designed screens. Screen printing gives the best results for precise control of sealant, quantity, and thickness.
2. **Hand** - material can easily be applied to the flange surfaces from a tube or a caulking cartridge. A break in the bead easily can be repaired. Small parts can be coated adequately by pressing them into a saturated polyester urethane sponge or by roll coating.
3. **Tracking** - material can be traced accurately and precisely by using a Hernon Dispensing Machine.

Storage

Hernon® Gasket Replacer 906 should be stored in a cool, dry location in unopened containers at a temperature between 46°F to 85°F (8°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.

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.