

Technical Data Sheet Gasket Replacer 911

December 2009

Page 1 of 3

Product Description

Hernon[®] Gasket Replacer 911 is a ready to use, one component, gel-like anaerobic thread sealant that cures at room temperature when it is isolated from air contact.

Gasket Replacer 911 seals close fitting joints between rigid metal faces and flanges, and provides an instant seal to low pressures immediately after assembly of flanges. It is typically used as a form-in-place gaskets for pumps, thermostats, compressors, transmission housings and axle covers.

Typical Properties (Uncured)

Property	Value
Resin	Modified dimethacrylate ester
Appearance	Orange gel
Viscosity @ 25°C, cP	8,000 to 10,000
Specific gravity	1.10
Flash point	See MSDS

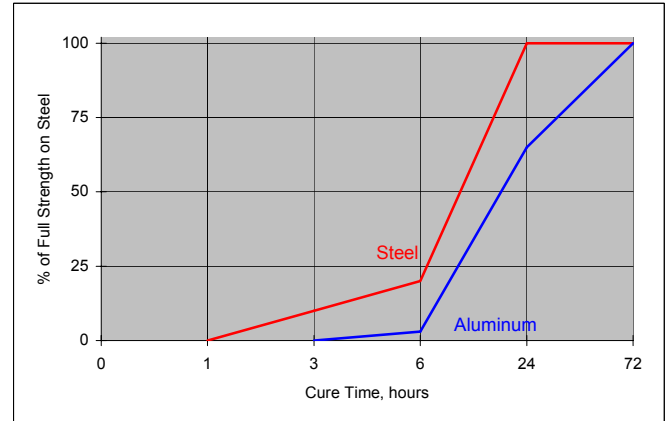
Typical Properties (Cured)

Property	Value
Coefficient of thermal expansion, ASTM D696 (K ⁻¹)	80x10 ⁻⁶
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 150 (-65 to 300)

Typical Curing Performance

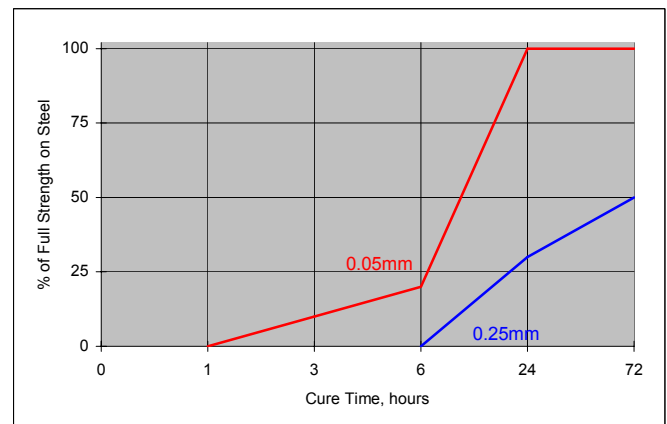
Cure Speed vs. Substrate

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.



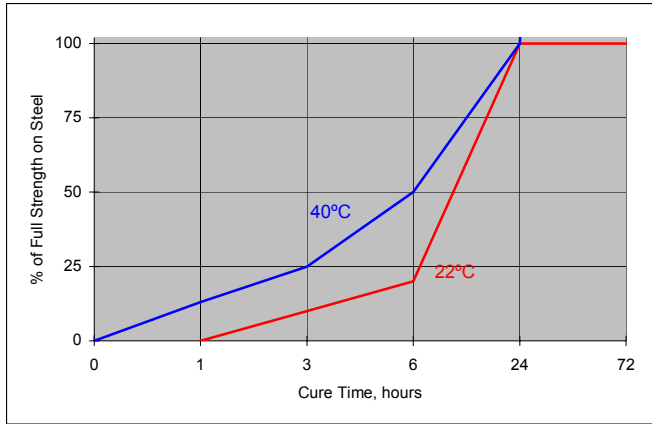
Cure Speed vs. Bond Gap

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.



Typical Cured Performance

Shear strength, ISO 4587
Tested on gritblasted steel

Cure at 22°C	Shear Strength, N/mm ² (psi)
24 hours	9.0 (1305)

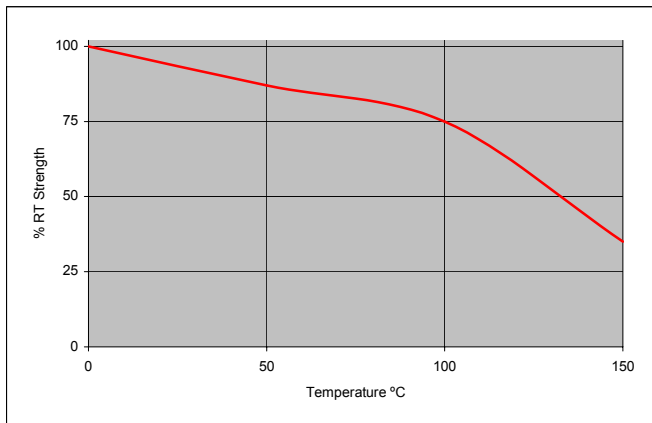
Typical Environmental Resistance

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

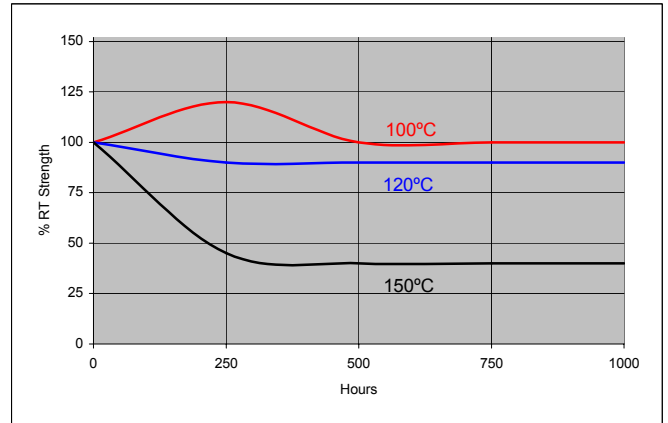
Hot Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested @ 22°C.



Chemical/Solvent Resistance

Aged under condition indicated - Tested at 72°F (22°C).

Chemical/Solvent	Temp (°C)	% of Initial Strength		
		100 h	500 h	1000 h
Water Glycol 50/50	87	100	100	100
Motor Oil	125	95	60	60
Gasoline	22	160	110	110

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.

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 911 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 Quality Standard.