HERNON®
High Performance Adhesives and Sealants
ISO 9001 Registered

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Technical Data Sheet
Cylinlock® 846

Product Description

Hernon® Cylinlock® 846 is a fast curing, high strength anaerobic adhesive yielding higher shear strengths with temperature resistance up to 300ºF (149ºC). It provides relatively quick cures, outstanding solvent resistance, and improved reliability for metal service applications.

Certified to NSF/ANSI Standard 61 for use in commercial and residential potable water systems

Typical Applications

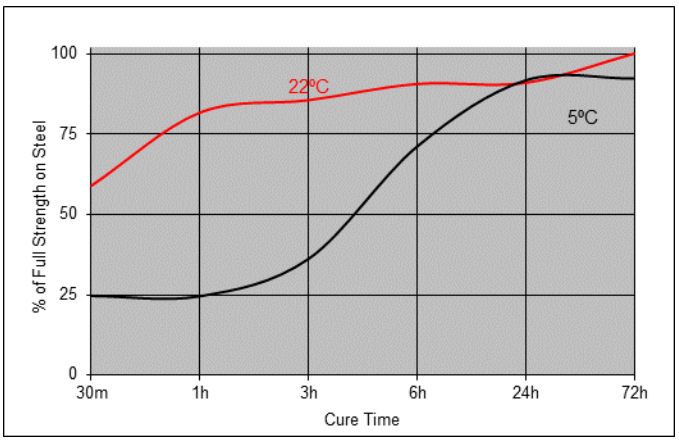
- Keys in worn keyways
- Bushings
- Pins, wheels, gears, pulleys

Typical Properties (Uncured)

Property	Value
Chemical Type	Methacrylate Ester
Appearance	Green fluorescent liquid
Specific Gravity	1.09
Fluorescence	Positive
Viscosity @ 25ºC, cP	1000 - 1500
Flash Point	See SDS

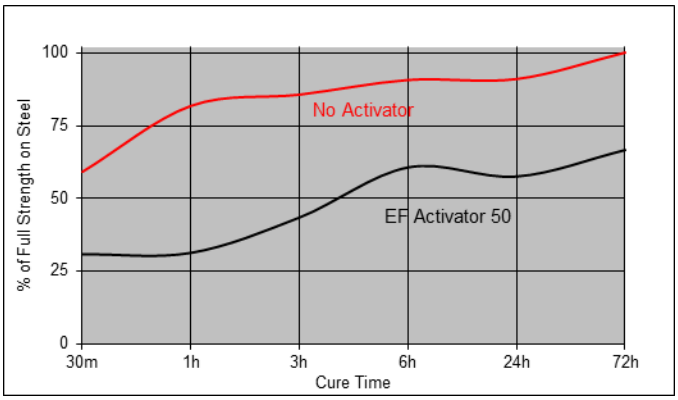
Typical Curing Performance

Cure Speed vs. Temperature
The rate of cure will depend on the ambient temperature. The graph shows the shear strength developed with time at different temperatures on steel pins and collars and tested according to ASTM D4562.

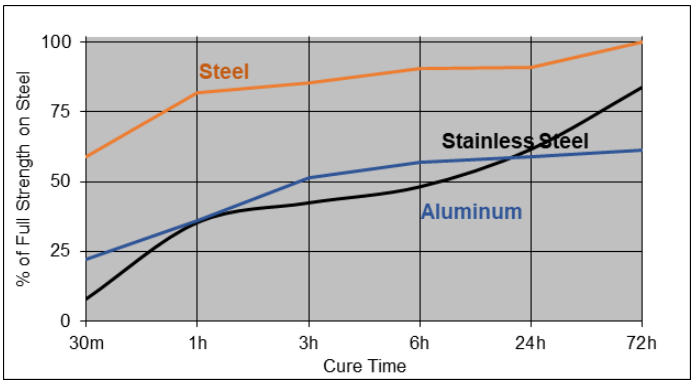


Cure Speed vs. Primer

The graph below shows shear strength developed with time using **Primer 50** on steel pins and collars and tested according to ASTM D4562.



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 steel pins and collars compared to different materials and tested according to ISO 10123.



Typical Properties (Cured)

Property	Value
Temperature Range	up to 300°F
Fixture time, Using Steel Nuts/Bolts	Less than 1 hour

Typical Cured Performance

Cured and tested at 22ºC.
According to ASTM D5363.

Substrate	Torque	N•m (in-lb)
3/8 x 16 steel - grade 5 bolts and type 2 nuts	Breakaway	16.9-56.5 (150-500)
	Prevailing	16.9-39.5 (150-350)

Cured and tested at 22ºC.
According to ISO 10964.

Substrate	Torque	N•m (in-lb)
M10 black oxide bolts and steel nuts	Breakaway	28.2-45.2 (250-400)
	Prevailing	39.5-50.8 (350-450)
M10 Zinc phosphate nuts and bolts	Breakaway	22.6-28.2 (200-250)
	Prevailing	11.3-22.6 (100-200)

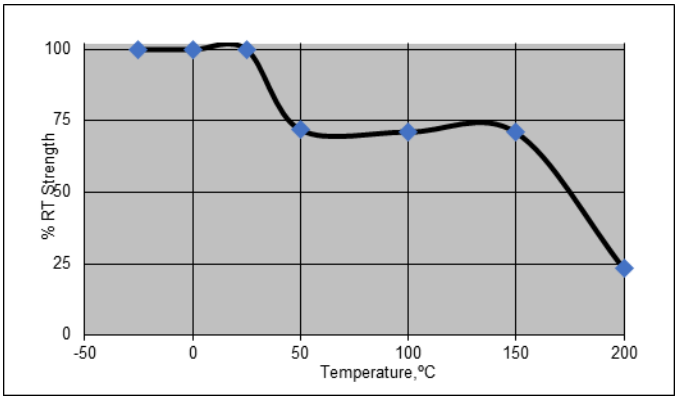
Compressive Shear Strength
Tested at RT, on steel pins and collars according to ASTM D4562.

Cure Conditions	Shear Strength, N/mm² (psi)
24 Hours, RT	≥ 17.2 (≥ 2500)
1 Hour, 93 ºC	≥ 17.2 (≥ 2500)
72 hours, RT	≥ 20.7 (≥ 3000)
168 hours, RT	≥ 24.1 (≥ 3500)

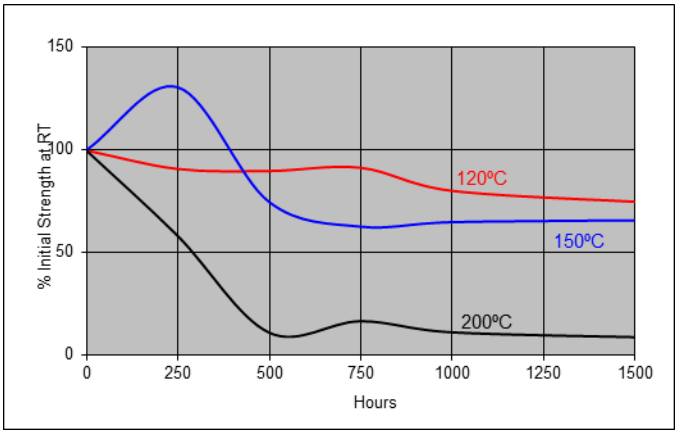
Typical Environmental Resistance

Cured for 1 week @ 22ºC
Shear Strength, ASTM D4562
Steel Pins and Collars

Hot Strength
Tested at temperature



Heat Aging
Aged at temperature indicated - Tested at (22ºC).



Chemical/Solvent Resistance
Aged under conditions indicated - Tested at 72ºF (22ºC)

Chemical/Solvent	Temperature (ºC)	% of Initial Strength 1500 h
Water Glycol 50/50	87	40.2
Brake fluid	22	77.3
Gasoline	22	45.1
Motor Oil	125	64.9

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).

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 case, these aqueous washes can affect the cue 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
For best results, clean all surfaces (external and internal) with a **Hernon®** cleaning solvent and allow to dry. If the material is an inactive metal or the cure speed is too slow, apply **Activator 49 or 50** and allow to dry.

For Threaded Assemblies the adhesive should be applied to 2-5 threads and the nut screwed on over the

adhesive. Allow sufficient time to cure (approx.1 hr). Wipe off excess sealant after nut is applied.

For Slip Fitted Assemblies, apply adhesive around the leading edge of the pin and the inside of the collar and use a rotating motion during assembly to ensure good coverage.

For Press Fitted Assemblies, apply adhesive thoroughly to both bond surfaces and assemble at high press on rates.

For Shrink Fitted Assemblies the adhesive should be coated onto the pin, the collar should then be heated to create sufficient clearance for free assembly.

Parts should not be disturbed until sufficient handling strength is achieved.

Disassembly and Cleanup
To aid in disassembly anaerobic compounds can be weakened by heating to at least 500ºF (260ºC). Once disassembled, cured adhesive can be removed with **Hernon® Gasket Remover 30**.

Storage
Cylinlock® 846 should be stored in a cool, dry location in unopened containers at a temperature between 45ºF to 85ºF (7ºC to 29ºC) 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.