HERNON®
High Performance Adhesives and Sealants
ISO 9001:2000

121 Tech Drive
Sanford, FL 32771
(407) 322-4000
Fax: (407) 321-9700
www.hernonmfg.com

Technical Data Sheet
Nuts N' Bolts® 426

Product Description

Hernon® Nuts N' Bolts® 426 is a single component anaerobic thread locking material, which develops high strength. The product cures when confined in the absence of air between close fitting metal surfaces.

Typical Applications

- Prevents loosening and leakage of threaded fasteners.
- Cylinder liner studs.
- Automotive front end suspension bolts.
- Hydraulic press studs, where difficult removal is desired.
- Air compressor fasteners
- Refrigeration safety valves

Typical Properties (Uncured)

Property	Value
Chemical Type	Dimethacrylate ester
Appearance	Green fluorescent liquid
Viscosity @ 77ºF (25ºC), cP	400 to 600
Specific gravity	1.08
Flash point	See MSDS
Temperature Range, ºF	-65 to 300

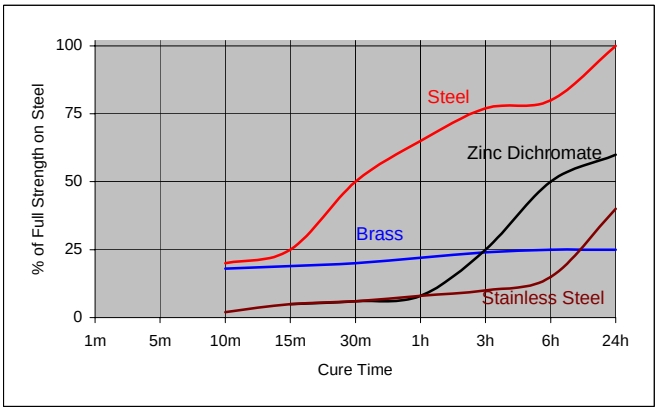
Typical Properties (Cured)

Property	Value
Coefficient of thermal expansion, ASTM D696 (K^{-1})	0.1
Coefficient of thermal conductivity, ASTM C 177, W/(m·K)	0.1

Typical Curing Performance

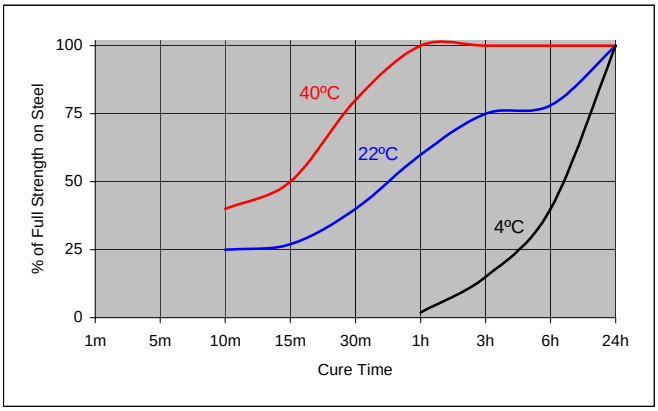
Cure Speed vs. Substrate

The rate of cure will depend on substrate used. The graph below shows the breakaway strength developed with time on M10 steel nuts and bolts compared to different materials and tested according to ISO 10964.



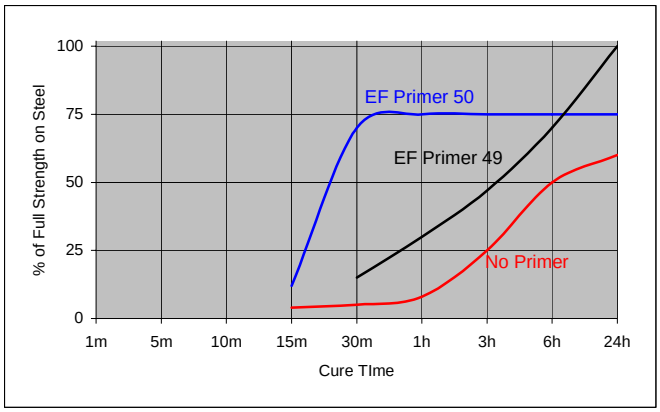
Cure Speed vs. Temperature

The rate of cure will depend on the ambient temperature. The graph shows the breakaway strength developed with time at different temperatures on M10 steel nuts and bolts and tested according to ISO 0964.



Cure Speed vs. Primer

When cure speed is unacceptably long (because of substrate, temperature or gap), performance may be improved by treating the surface with **Hernon® EF® Primer 49 or 50**. The graph below shows breakaway strength developed with time using **EF® Primer 49 and 50** on M10 zinc dichromate steel nuts and bolts and tested according to ISO 10964.



Typical Cured Performance

Tested on 3/8 x 16 grade 2 nuts and grade 5 bolts according to ISO 10964.

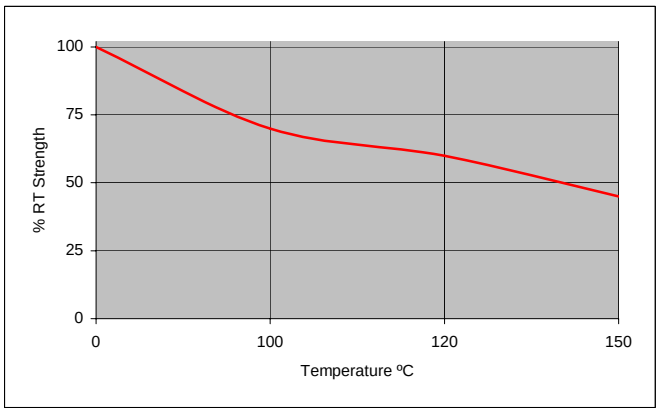
RT Cure	Substrate	Torque	N•m (in-lb)
90 Minutes	Steel	Breakaway	8.5 to 39.5 (75 to 350)
		Prevailing	8.5 to 56.5 (75 to 500)
24 Hours	Steel	Breakaway	16.9 to 39.5 (150 to 350)
		Prevailing	16.9 to 56.5 (150 to 500)
	Plated	Breakaway	4.5 to 39.5 (40 to 350)
		Prevailing	4.5 to 56.5 (40 to 500)

Typical Environmental Resistance

Cured for 24 hours @ 22ºC
Breakaway Torque, ISO 10964
M10 steel nuts and bolts

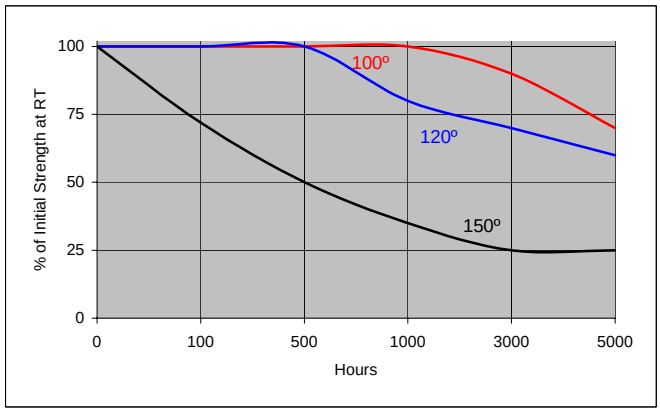
Hot Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested at 22°C



Chemical/Solvent Resistance

Aged under conditions indicated and tested at 22ºC.

Chemical/Solvent	Temp (ºC)	% of Initial Strength 100 h	500 h	1000 h
Water Glycol 50/50	87	100	85	85
Brake fluid	22	100	100	100
Ethanol	22	95	95	95
Leaded Gasoline	22	100	100	100
Unleaded Gasoline	22	100	100	95
Motor Oil	125	90	85	85
Acetone	22	95	95	95
1,1,1 Trichloroethane	22	100	85	85

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 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 performance surfaces should be clean and free of grease. **Nuts N' Bolts® 426** should be applied to the bolt in sufficient quantity to fill all engaged threads.

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

Nuts N' Bolts® 426 should be stored in a cool, dry location in unopened containers at a temperature between 46ºF to 82ºF (8ºC to 28ºC) 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.