

Technical Data Sheet ThreadPaste 432

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Product Description

Hernon® Threadpaste 432 is a single component anaerobic thread-locking compound designed for heavy duty applications subject to operating temperatures to 450°F (232°C).

The product delivers high strength locking and sealing on screws, nuts, bolts, studs and fittings. Excellent break-loose and prevailing torque values assure maximized resistance to transverse vibration loosening at elevated temperatures.

Typical Applications

- Heat treat furnace equipment.
- Annealing equipment.
- Rolling mill components, conveyances.
- Hot forge, induction heating equipment.

Typical Properties (Uncured)

Property	Value
Chemical Type	Dimethacrylate ester
Appearance	Red fluorescent paste
Viscosity @ 77°F (25°C), cP	700,000 to 1,200,000
Specific gravity	1.15
Flash point	See SDS

Typical Properties (Cured)

Property	Value
Temperature Range, °F	-65 to 450
Set time, Steel, minutes	45-60

Typical Cured Performance

Torque Strength

Cured and tested at 22°C on 3/8 x 16 steel grade 5 bolts and type 2 nuts

Cure	Torque	N•m (in-lb)
24 Hours	Breakaway	15.8-39.5 (140-350)
	Prevailing	13.6-56.5 (120-500)
169 Hours	Breakaway	≥16.9 (≥150)
	Prevailing	≥14.7 (≥130)

Compressive Shear Strength

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

Cure Conditions	Shear Strength, N/mm ² (psi)
24 hours at 22°C	≥6.9 Nmm ² (1,000psi)

Typical Environmental Resistance

Cured for 72 hours
3/8 x 16 Plated Steel Nuts and Bolts
Breakaway torque was measured.

Chemical/Solvent Resistance

Aged 1000 hours under conditions indicated and tested at 22°C.

Chemical/Solvent	Temperature, °C	% of Initial Strength
Motor Oil	125	32
Brake Fluid	22	58
Water/Glycol (50:50)	87	238
Ethanol Fuel	22	114
DEF	22	195

Heat Aging

Aged for 1000 hours at temperature and tested at room temperature.

Temperature	% of Initial Strength
100°C	243
125°C	284
150°C	207

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 performance surfaces should be clean and free of grease. **Threadpaste 432** 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 temperatures above 500°F (260°C). Once disassembled, cured adhesive can be removed with **Hernon® Gasket Remover 30**.

Storage

Threadpaste 432 should be stored in a cool, dry location in unopened containers at a temperature between 45°F to 85°F (7°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.

Dispensing Equipment

Hernon® offers a complete line of semi and fully automated dispensing equipment. Contact **Hernon® Sales** for additional information.

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