

Grenade Igniter Case Sealant 47422

Product Description

Hernon® Grenade Igniter Case Sealant 47422 is a single component anaerobic thread locking and sealing adhesive. **Grenade Igniter Case Sealant 47422** is a low viscosity penetrating material for locking already assembled threaded fasteners. It is specially formulated for pre-assembled fasteners; it works by capillary action and it simplifies preventive maintenance. Curing occurs when adhesive is confined between mating surfaces. The cured adhesive is a thermoset plastic suitable for temperatures up to 400°F (204°C), and exposure to most solvents.

Grenade Igniter Case Sealant 47422 cures quickly at room temperature without the need for surface activators or heat to join threaded assemblies. Fixturing strength develops in five minutes, or within 10 seconds by exposing the edge fillets to high intensity long wavelength UV light (365 nm). Full strength will be reached in 24 hours. Cure fillets at UV light irradiances above 60 milliwatts/cm² to insure proper cure.

Product Benefits

- UV fluorescence for in-process inspection
- 100% solid system (no solvents).
- Excellent environmental resistance
- Good gap filling properties.
- No shrinkage due to solvent evaporation
- Rapid room temperature cure
- UV and anaerobic curing mechanism

Typical Properties

| Property | Value |
|-----------------------|------------------------|
| Chemical Type | Methacrylate Ester |
| Appearance | Red fluorescent liquid |
| Viscosity @ 25°C, cP | 9 - 16 |
| Specific Gravity | 1.06 |
| Flash Point | See MSDS |
| Temperature Range, °F | -65 to 400 |

Curing Specifications

Curing occurs when the resin is confined between metallic surfaces. The metal acts as a catalyst for the curing process. Hot air oven heat or induction heat will fully cure this compound. To insure proper cure of UV fillets, UV light intensities above 60 milliwatts/cm² is recommended.

Typical Curing Performance

Fixture Time and Surface Cure

UV fixture time is defined as the light exposure time required to develop a shear strength of 0.1 N/mm².

When curing with sufficient UV light irradiance, exposed material cures dry to the touch in seconds.

| Test | Irradiance | Result |
|--|------------------------------------|---------------|
| Fixture time, glass microscope slides | 6 mW/cm ² | < 10 seconds. |
| Surface cure, medium pressure mercury arc light source (undoped) | 100 mW/cm ² @ 365 nm | < 10 seconds |
| | 60 mW/cm ² @ 260 nm | < 10 seconds |

Typical Cured Performance

Cured for 24 hours @ 22°C

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

| Substrate | Torque | in-lb |
|-----------|------------|---------|
| Steel | Breakaway | 100-350 |
| | Prevailing | 75-300 |
| Plated | Breakaway | 50-150 |
| | Prevailing | 150-300 |

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).

Hernon® Technical Data Sheet

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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

For best performance surfaces should be clean and free of grease. **Grenade Igniter Case Sealant 47422** should be applied 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 500°F (260°C). Once disassembled, cured adhesive can be removed with **Hernon® Gasket Remover 30**.

Storage

Grenade Igniter Case Sealant 47422 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 9001:2008 Quality Standard.