

Technical Data Sheet CM8005

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Product Description

Hernon[®] CM8005 is a single component room temperature cure gel-like anaerobic gasketing compound formulated to provide instant sealing capabilities. Once cured between mating metal flanges and filling voids in the surface, **CM8005** provides a thin, flexible, solvent and temperature resistant seal.

Typical Properties (Uncured)

| Property | | Value |
|-----------------------|--------------|-----------------------|
| Resin | | Methacrylate ester |
| Appearance | | Red gel |
| Viscosity at 25°C, cP | TC @ 0.5 rpm | 2,800,000 to 5,00,000 |
| | TC @ 5.0 rpm | 400,000 to 1,200,000 |
| Specific gravity | | 1.17 |
| Flash point | | See MSDS |

Product Benefits

- Instant sealing
- Provides reliable seal
- No shrinkage due to solvent evaporation
- Excellent chemical resistance
- Eliminates need for retorquing

Use And Application

CM8005 is an anaerobic sealant that can replace or be used as a dressing for conventional gaskets. To obtain the best results, clean the parts from contamination such as grease, dirt, and heavy oil. **Hernon[®] Safety Solvent 62** or a similar chlorinated solvent can be used to clean parts.

Typical Properties (Cured)

| Property | | Value |
|---|-----------|-------------------------|
| Resin | | Flexible Polymer |
| Temperature Range, °F (°C) | | -65 to 300 (-55 to 150) |
| Maximum Sealing Pressure | | 5,000 psi |
| Percent Elongation (to 250°F) | | 30% |
| Gap Filling Ability | No Primer | 0.010" (0.254 mm) |
| | W/Primer | 0.050" (1.35 mm) |
| Shear Strength ¹ , Psi (MPa) | | 50-150 (0.34-1.03) |

¹ Shear strength per ASTM D1002 on as received steel coupons.

Curing Specifications

Curing With Primer

The use of **Hernon[®] EF[®] Primer 50** can provide faster pressure resistance. Assemble parts within 3 minutes of the time the sealant contacts the primed surface.

| Active Surfaces Primer NOT Required | Inactive Surfaces Primer Required |
|--|--------------------------------------|
| Steel | Zinc |
| Manganese | Bright |
| Iron | Pure Aluminum |
| Bronze | Platings |
| Copper | Stainless Steel |
| Nickel | Anodized |
| Brass | Cadium |
| Commercial Aluminum | Passivated Magnesium |
| | Titanium |

Gaps Over 0.01 in. (0.25 mm) up to 0.05 in. (1.27 mm)

For larger gaps, **EF[®] Primer 50** must be used. Partial cure is obtained in 4 hours and full cure in 48 hours. Due to the instant sealing ability of **CM8005**, parts may be low pressure tested within minutes after assembly.

Heat Cure

Heat cures can be used to overcome gap or inactive surfaces as follows:

| Gap | Cure Time Required @250°F (120°C) |
|---------------------------------------|--------------------------------------|
| 0.02 to 0.03 in. (0.51 to 0.76 mm) | 2 Hours |
| 0.05 in. (1.27 mm) | 3 Hours |

Cold Cure

For temperatures below room temperature, **EF[®] Primer 50** should be used. At 0°F, full cure time is about 48 hours through zero gap.

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

Screen Printing

Complex flange surfaces and shapes can be coated in seconds using specially designed screens. Screen printing gives the best results for precise control of sealant, quantity, and thickness.

Hand

Can easily be applied to the flange surfaces from a tube or a caulking cartridge. A break in the bead easily can be repaired. Small parts can be coated adequately by pressing them into a saturated polyester urethane sponge or by roll coating.

Tracking

Can be traced accurately and precisely by using a **Hernon Dispensing Machine**.

Storage

CM8005 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.