

Technical Data Sheet Primer 50

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Page 1 of 2

Product Description

Hernon® Primer 50 is a single component, non-CFC solvent-based product designed to promote the cure speed of **Hernon®** anaerobic adhesives and sealants.

Typical Applications

Primer 50 is used where increased cure speed of **Hernon®** anaerobic adhesives and sealants is required. It is especially recommended for applications with passive metals or inert surfaces and with large bond gaps. It is particularly recommended for cure conditions below 15°C.

Performance Testing

Primer 50 meets the requirements of ASTM D5363 (Grade N) and MIL-S-46163A Grade F.

Typical Properties

Property	Value
Appearance	Green liquid
Chemical Type	Amine/ Copper salt
Solvent	Acetone
Specific Gravity @ 25°C	0.79
Viscosity @ 25°C, cP	Low
Drying Time, minutes	≤5
On Part Life, days	30
Flash Point	See SDS

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm².

Tested on grit-blasted steel lap-shear specimens, one side primed with **Primer 50**.

Adhesive	Value
HASA 716	35-45 seconds
HASA 722	≤ 30 seconds

Typical Cured Performance

Shear Strength

Tested on lap-shear specimens with 1 side primed with **Primer 50** and tested according to ASTM D1002.

Adhesive	Substrate	Cure Time (hours)	Shear Strength (psi)
HASA 716	G/B Steel	24	1000-2000
HASA 722	G/B Steel	24	1500-2500

Torque Strength, ASTM D5363

3/8 x 24 Grade 2 Steel Nuts and Bolts

Cure Time at 22°C with **Nuts N' Bolts® 232**

Prevailing Torque N•m (in-lb)	
Plated steel	
6 Hours	≥ 2.3 (20)
24 Hours	4.5 to 11.3 (40-100)

Handling Precautions

This is a highly flammable material. When dispensing this material from a pressurized system, only nitrogen or argon should be used. Please check local, state and federal regulations regarding the use of flammable liquids in the workplace. For example, special care must be taken to avoid contact of the activator or its vapor with open flame or any electrical equipment that is not flame proofed.

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.

Directions for Use

1. Spray or brush the primer on one or both mating surfaces. For small gaps, treatment of only one surface may be adequate. Contaminated surfaces may need repeated treatment or special degreasing prior to activation to remove any dissolvable contamination. If bonding surfaces are porous, or if gaps are large, apply the primer to both surfaces.

Note: Because the solvent base can affect certain plastics or coatings, checking all surfaces for compatibility is recommended.

2. Allow the solvent sufficient time to evaporate under good ventilation.
3. After priming, parts should be bonded within 30 days. Try to prevent any surface contamination before the bonding process.
4. Apply the adhesive/sealant to one or both surfaces and assemble parts immediately.

Note: If **Primer 50** is to be applied to only one surface, apply the adhesive to the opposite surface.

5. When possible, for a few seconds move surfaces in relation to each other to properly distribute the adhesive and to achieve maximum activation. Secure the assembly and wait for surfaces to fixture before any further handling.

General Information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected with a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

Under no circumstances should primer and adhesive be mixed directly as liquids.

Storage

Primer 50 is classified as **highly flammable** and must be stored in an appropriate manner in compliance with relevant regulations. Do not store near oxidizing agents or combustible materials. Store product in the unopened container in a dry location. Store 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.

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.