HERNON®
Formulating Solutions

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SelfSealer® 616

Product Description

Hernon® SelfSealer® 616 is a high-viscosity, tough, pre-applied, non-hardening thread sealant containing PTFE. Once dried, it forms a resilient, tightly adhering, non-curing film suitable for both tapered and straight threads. It delivers an instant seal across various pipe thread types and can withstand up to five assembly cycles without the need for reapplication.

SelfSealer® 616 is water based, non-toxic, safe and can be applied easily without special handling precautions. It provides resistance to vibrational loosening because of its prevailing torque characteristics. Therefore, it is very effective on non-locking applications.

Product Testing and Certification

Certified to NSF/ANSI/CAN Standard 61 for use in commercial and residential potable water systems not exceeding 82ºC (180ºF).

WRAS Approved Material — Approval No. 261055033
SelfSealer® 616 was tested by NSF Wales Ltd. and meets BS 6920-1:2014 for contact with wholesome water up to 85°C (185°F) when applied, cured, and cooled according to the *Recommended Instructions for Use*

UL Classification
Classified by Underwriters Laboratories Inc.® MH14222 as to fire hazard only. Self Sealer 616. Classified 0 to 10 less hazardous than paraffin oil in respect to fire hazard. For use in devices handling gasoline, petroleum oils, natural gas (pressure not over 100 psi), butane and propane, not exceeding 2 in. pipe size. Suitable for single assembly ("insertion") use when applied and dried prior to assembly in accordance with the manufacturer's instructions.

Product Features

- The pre-applied film provides instant sealing for NPT threads up to 4 inches in diameter immediately upon installation
- Mechanically, the dry film generates prevailing torque characteristics making threaded parts resistant to vibrational loosening after installation.
- Corrosion is inhibited between mating threads. The threads are safely sealed from contact with the atmosphere by the coating.
- Safe to use with plastics. It will not craze or attack plastic components.

Product Benefits

- The pre-applied coating eliminates liquid and paste migration problems and concerns during installation.
- Precoated fittings can be stored for delivery and assembly.
- The pre-applied coating is tough, resilient and resists shredding and peeling during assembly.
- Ideal for field assembly – precoated parts are always there and ready for the task.
- Precoated parts have a shelf life of several years.

Typical Applications

- Plumbing Parts
- Pipe Fittings
- Shower Heads
- Broken Fittings
- Brake Fittings
- Valves
- Door Closure Hardware
- Compressor Pipe Plugs
- Bearing Adjuster Nuts
- Overhead Fire Sprinklers
- Pressure Gauges
- Resistant to Bleach

Typical Properties

Property	Value
Chemical Type	Acrylic
Appearance	White
Viscosity @ 25ºC, cP	15,000 - 25,000
Instant Seal ½ inch NPT fittings	to 4,150 kPa (600 psi)
Operating Temperature	-55 to 150ºC (-65 to 300ºF)
On Part Life	4 years
Specific gravity @ 25C	1.24
Flash point	See SDS
Solid/Non-volatile content %	50-60

Typical Performance

Torque
3/8" x 16 steel nuts and bolts

Property	Torque (in-lb)
Seating Torque	300
Breakloose Torque	150

Pressure Resistance
The 3-inch NPT pipe was tested at 3,000 psi with no leakage observed. However, customer testing is recommended for high-pressure applications to ensure suitability for specific system requirements.

Chemical / Solvent Resistance

Test performed on ½ inch NPT tees and malleable plugs. Tested at 4,150 kPa (600 psi) air after 30 days immersion in solvents indicated.

Solvent	ºC (ºF)	Result
10W30 Motor Oil	120 (248)	No Leakage
Water/Glycol 50/50	100 (212}	No Leakage
Diesel Fuel	50 (122)	No Leakage
Dexron VI (ATF)	120 (248)	No Leakage
Hydraulic Steering Fluid	120 (248)	No Leakage

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).

Directions for Use

Application
SelfSealer® 616 can be applied directly from the bottle or through semi-automatic and automatic applicators. All parts must be clean, dry, and free of surface contaminants prior to coating. For best results, maintain a stable application temperature of 25 °C (77 °F) to ensure consistent viscosity, flow, and handling.

The required quantity depends on the surface area of the threads being coated. The table below provides approximate amounts of **SelfSealer® 616** for different plug sizes. Properly coated parts should appear only lightly moistened with a thin, even film of product. Apply evenly within the threads and avoid excess material outside the bonding area.

Note: Customer testing is recommended before use with brass components.

Usage Chart for SelfSealer® 616

Pipe Size, in.	Coating Width, in.	ml/1000 Parts
1/16	5/16	30
1/8	3/8	50
1/4	7/16	112
3/8	1/2	155
1/2	9/16	285
3/4	5/8	400
1	3/4	725
1 1/4	13/16	980
1 1/2	7/8	1150
2	1 1/16	1525
2 1/2	1 1/8	3225
3	1 3/16	4000

Drying Requirements:
Dry for 25 minutes at minimum 158°F (70°C) in a preheated forced air oven. After drying, it is recommended to cool the parts to 25°C and maintain this temperature for a minimum of 24 hours prior to assembly.

Note: Drying time may vary depending on part size and the amount of product applied. Detailed Instructions for Use (IFU) were given below.

RECOMMENDED INSTRUCTIONS FOR USE:
STAINLESS STEEL NPT PARTS
Application and Curing Instructions:

- Ensure the application environment is stable at 25°C (77°F).
- This temperature helps maintain optimal viscosity, flow and handling of the product.

Procedure:
1. Prepare the Application Area (25°C / 77°F):

- Ensure the application environment is stable at 25°C (77°F).
- The temperature helps maintain optimal viscosity, flow and handling of the product.

2. Apply the Product:

- Apply the adhesive, coating or sealant to the substrate while at 25°C / 77°F.
- Use 3–5 threads per 1/4” stainless steel NPT for application.
- Apply the product evenly within the threads—avoid excess material beyond the bonding area.
- Ensure full contact between the product and bonding surfaces.

3. Transfer to Curing Oven (Minimum 70°C / 158°F):

- After application, carefully place the parts into a preheated forced air oven set to at least 70°C / 158°F.
- Handle the parts gently to avoid disturbing the bond or coating during transfer.

4. Drying / Curing at 70°C / 158°F:

- Dry/Cure the parts in the forced air oven at a minimum of 70°C / 158°F for at least 25 minutes.
- Ensure the oven maintains consistent airflow and temperature throughout the process.

5. Cooling:

- After drying/curing, allow the parts to cool gradually to room temperature.
- Keep cured parts at 25°C / 77°F for at least 24 hours before final assembly.

Important: Female NPT parts must be assembled with their corresponding male NPT counterparts before any performance testing.

Storage

SelfSealer® 616 should be stored in a cool, dry location in unopened containers at a temperature between 45ºF to 85ºF (7ºC to 29ºC) 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.