



Product Description: Formula-8 is engineered with mineralized PTFE in a shear-sensitive thixotropic paste that wets into and seals threaded joints with strings of PTFE when torqued. Formula-8 is engineered to seal over the entire thread length for the life of the joint in liquid, gas, and vacuum service.

NSN 8030-01-527-7193

Features and Benefits

- Aqueous-based PTFE dispersion formulation
- Water soluble
- Wide continuous service temperature range -400°F to +550°F
- Stable in pressures up to 10,000 psi and in vacuums 10^{-3} Torr
- Chemically inert
- Anti-galling, anti-corrosive, anti-seize
- Prevents pipe damage on stainless steel, steel, and plastic
- Silicone free
- Insidiously wets to threads, and once dried down, will not be dislodged
- Will not cold flow over time
- Will not jam check valves, pumps, or plug orifices
- Non-migrating
- Non-toxic, solvent-free, non-hazardous, odorless, non-flammable, VOC-free
- Seals all sizes and types of threaded joints
- Permits sealing or disassembly at relatively low torques
- Engineered to replace thread sealing tapes
- Eliminates challenges associated with tape



Applications

- Natural gas applications
- Cryogenic applications
- Welding and industrial gases
- Gasoline, diesel, kerosene fuel systems
- Hydraulic systems
- Vacuum service to 10^{-3} Torr
- Chlorine (gaseous and liquid) and powerful oxidizers
- Oxygen systems (gaseous and liquid)
- Valves in bottled gases
- Water and wastewater processing
- Instruments and fine threads
- Machine and engine sensors
- Ammonia and freon refrigeration service
- Medical
- Wafer fab
- Offshore drilling rigs
- Coal power plants
- Aerospace
- Chemical processing
- Medical

Specifications and Approvals

- NASA-tested (ASTM G72-82 and ASTM G86)
- NSF-approved for food processing areas
- BAM-tested
- WHA high pressure oxygen tested
- NSN 8030-01-527-7193





Test	Rating
Appearance	Dispensed: paste Dried: hard
Texture	Paste: smooth, free of lumps
NLGI	Paste: paste: 2 Dried: hard: na
Flammability Flash Point	Non-flammable None
VOC – EPA test 24	Paste: 1.1% Dried: 0.0 %
Color/Odor	White/Odorless
Dropping Point	Dried: none
Service Temperature Range	-400°F (-240°C) to +550°F (+287°C)
NSF Approved	S2

Test	Rating
Vapor Pressure	Dried: none
Density	Dried: 1.2 g/ml
ASTM G72 Oxygen Test AIT High Pressure 6000 psi held at constant steady pressure	Dried: 6000 psi (414 bar) AIT: 173 C
ASTM G72 Oxygen Test AIT Standard Test Pressure 1500 psi	Dried: 1500 psi (103 bar) AIT: 180 C
ASTM G86 Oxygen Impact test 3015 psi & 72 ft-lbs (98 J) impact	Dried: Samples: 20 Number Reactions: 0
BAM oxygen gaseous tested at 60c	Paste: 2320 psi (160 bar) Dried: 435 psi (30 bar)
BAM oxygen liquid	Paste: No limitations Dried: No limitations
Solubility in Sulfuric Acid	Dried: none, no effect
Praxair GS-38	Approved

How to Apply

- Clean the male and female threads of any dirt or oil.
 1. Use a brass or stainless-steel wire brush to clean off any material on the threads
 2. Wipe down the threads using a lint free cloth and acetone
 3. Re-assemble
- Starting one to two threads back from the end of the male fitting, use your finger to liberally apply Formula-8 to fill the threads.
- Fit and torque the male and female pieces together. Hand tighten or use standard pipe tools to torque.
- Wipe off excess sealant.
- Let dry down 12 hours before returning to service.
- Be careful not to over-tighten fittings, especially plastic, pvc, or cast iron, as the fittings may crack.

On threaded joints 3/4" or larger, Fluoramics suggests using Formula-8 and Full Density PTFE tape:

- Clean the male and female threads of any dirt or oil.
- Starting two threads back from the end of the male fitting, apply two wraps of a Full-Density PTFE Tape in the direction of thread rotation, maintaining tension on the tape while wrapping.
- Apply the thread sealant over the tape as instructed above.

Health and Safety

Formula-8 is a very safe, solvent-free product. Not classified as hazardous according to OSHA 29 CFR 1910.1200 and WHMIS. Not hazardous under the consumer product safety regulations. Avoid contact with the eyes. Wash hands with soap and water after use. In case of eye contact: flush with water. Get medical attention if irritation persists. If swallowed, call a poison center or doctor for advice. See Safety Data Sheet for additional information.





Storage/Shipping and Handling

Do not store at temperatures below 0°C/32°F. *Product only freeze sensitive in the paste state.* Always keep unused product in original container, store upside down, tightly closed. Store in a cool, dry ventilated area. Avoid freezing and excessive heat during storage and shipping. DOT-classified as non-hazardous, can be shipped by air with no shipping restrictions. See Safety Data Sheet for additional information.

Packaging

Part No.	Size	Container	Case Quantity
8900003	NET WT: 15 grams, .53 oz.	Tube	12
8900006	NET WT: 100 grams, 3.5 oz.	Tube	24
8900008	NET WT: 650 grams, 1.43 lbs.	Jar	12



FORMULA-8® IS COMPATIBLE WITH THESE AND OTHER SIMILIAR AGGRESSIVE CHEMICALS:

- | | | |
|----------------------|--|----------------------------|
| Acetylene | Helium | Perchlorate |
| Aluminum Chloride | Hydraulic Oils | Phosphoric Acid |
| Ammonium Nitrate | Hydriodic Acid | Potassium |
| Ammonium Perchlorate | Hydrogen | Potassium Persulfate |
| Antimony Trichloride | Hydrogen Bromide | Propane (liquid & gaseous) |
| Bromine | Hydrogen Peroxide (all concentrations) | Propylene Oxide |
| Calcium Hypochlorite | Hydrogen Sulfide | Silane |
| Carbon Dioxide | Iodine | Silicone Tetrachloride |
| Chlorosilanes | Kerosene | Sodium Hypochlorite |
| Chlorosulfonic Acid | Muriatic Acid | Sodium Perchlorate |
| Chromic Acid | Nitric Acid | Sulfur Dioxide |
| Diesel Fuel | Nitrogen Oxides | Sulfur Trioxide |
| Ethylene | Oleum | Sulfuric Acid |
| Fluorine (gaseous) | Oxygen (liquid & gaseous) | Titanium Tetrachloride |
| Gasoline | | |

FORMULA-8® IS COMPATIBLE WITH THE FOLLOWING PIPES AND THREADS:

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|---------------|---------------------------|----------------|-------------------|---------------------------|
| All plastics | EPDM | Kynar PVDF | Polyvinyl alcohol | Stainless steel |
| Aluminum | Ethylene propylene rubber | Lead | PTFE type | Steel |
| Brass | Fluor-silicones | Neoprene | plastics | Urethanes |
| Bronze | Glass – ceramics | Polycarbonates | Rigid PVC/CPVC | Viton™ formulated plastic |
| Cured epoxies | Iron | Polyamides | Silicone Tubing | Zinc |

