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O ring PTFE Coating introduction :

5Ways A Fluoropolymer Coating Improves The Humble O-Ring O-rings are one of the samll, hidden, but vitally important parts of so many industrial items in our technologically-driven world, They are vital for sealing purposes in everything from automotive engines and filtration systems to domestic water heaters and water softeners. Although available in an enormous range of shapes, widths, diameters and materials, they are essentially a ring of round rubber.O-rings may be useful, but they can also be immensely frustrating. They stick together. are difficult to handle and differentiate from each other, and are often very small and easily lost. Lubricating the rings for installation is a mightmare, Applying oil or talc onto O-rings is easy enough, but after a short storage period, the lubricant makes its way to the bottom of the comtainer, leaving little on the top O-rings, and a sticky mess at the bottom. There are often health and safety issues with many oil lubricants, as well as environmental concerns on disposal of oil residue, oilsoaked rags, etc. Using oil lubricants also runs the risk of fouling up automatic installation-machine lines, leading to higher maintenance and downtime costs. O-rings can also be problematic even after they've been installed. By nature they are often exposed to solvents and other chemicals that can degrade the rubber, thereby reducing seal effectiveness. Coatings to the rescue Best Fluoro, manufacturer of the world's largest, most complete line of fluoropolymer coatings, has developed a range of coatings to solve there problems. Using a fluoropolymer coating on O-rings offer these benefits: Reduces the coefficient of friction without using a separate lubricant, thereby easing installation, and helping to stop the O-rings from "sticking" to each other. Avoids the need to use a messy lubricant such as oil, talc or silicone. Increases the chemical and weather resistance of the O-ring, thus protecting it from degradation by solvents, salt water, etc. Colour-codes O-rings, making it easier to differentiate among them. A range of colours from traditional black to bold orange is available. Enables the use of lower-cost rubber substrates, since the coating achieves the desired performance without having to rely on expensive substrates.Solvent-borne and environmentally friendly waterborne coatings are available for use on a wide range of substrates.Best Fluoro O-ring coatings are designed for application by coatings techniques such as quadrant coating or tumble spray. Such techniques are bulk-application, cost-effective techniques that give uniform and consistent coating coverage. They are suitable even for the smallest of O-rings, where direct spray application is time consuming and inefficient.

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Oring with PTFE coated

1.PTFE FEP/PFA encapsulated O Ring are designed to combine the sealing properties of the rubber O Ring with the chemical resistance of PTFE. 2.They are generally manufactured

rubber or silicone rubber and are coated in a thin molded layer of FEP or PFA.

3. This provides a unique seal popular for high friction and aggressive chemica I applications. FEP encapsulated O-

Rings are our most common and are resistant to solvents and chemicals.

4. They have a low coefficient of friction and a very low permeability to gases making them suitable for harsh environments.

5.PTFE Encapsulated O Ring also have a good elastomeric memory.

Features:

1.Excellent chemical resistance, is suitable for almost all chemical medium (st rong oxidation, reducing solvent);

2.Good corrosion resistance (Strong acid and alkali solvent);

3.Wide temperature range -200°C~300°C;

- 4.Good compression resistance \geq 30%;
- 5.Low Coefficient of Friction (only 0.1 ~ 0.2);
- 6.Good resistance to dissolve (≤0.1%);
- 7. High pressure resistantance(up to 60 Mpa);
- 8.Excellent sealing persistence , increase 500% life time.



chart of PTFE color coated

PTFE COATED MATERAL DATA

TEFLON® PTFE Coatings

PTFE (polytetrafluoroethylene) nonstick coatings are two-coat (primer/topcoat) systems. These products have the highest operating temperature of any fluoropolymer (260 °C/500 °F), an extremely low coefficient of friction, good abrasion resistance, and good chemical resistance. TEFLON® PTFE is available only in water-based liquid form.

- TEFLON® 850G-314 PTFE Liquid Primer / One Coat (2 Part) Green
- TEFLON® 850G-321 PTFE Liquid Primer / One Coat (2 Part) Grey
- TEFLON® 850G-204 PTFE Liquid Primer / One Coat (Premixed) Green
- TEFLON® 851G-214 PTFE Liquid Topcoat Green
- TEFLON® 851G-221 PTFE Liquid Topcoat Grey
- TEFLON® 851G-224 PTFE High Build Liquid Topcoat Green
- TEFLON® 851G-255 PTFE High Build Liquid Topcoat Black
- TEFLON® 852G-201 PTFE Liquid Topcoat Clear
- TEFLON® 852G-202 PTFE High Build Liquid Topcoat Clear

TEFLON® FEP Coatings

EP (fluorinated ethylene propylene copolymer) nonstick coatings melt and flow during baking to provide nonporous films. These coatings provide excellent chemical resistance. In addition to low friction, TEFLON® FEP coatings have excellent nonstick properties. Maximum use temperature is 204 °C/400 °F. TEFLON® FEP is available in water-based liquid and powder forms.

- TEFLON® 532G-8110 FEP Powder Topcoat Clear
- TEFLON® 856G-200 FEP Liquid Topcoat Clear
- TEFLON® 856G-204 FEP Liquid Topcoat Green

TEFLON® PFA Coatings

Like FEP, PFA (perfluoroalkoxy) nonstick coatings melt and flow during baking to provide nonporous films. TEFLON® PFA offers the additional benefits of higher continuous use temperature (260 °C/500 °F), film thicknesses up to 1,000 micrometers (40 mils), and greater toughness than TEFLON® PTFE or TEFLON® FEP. This combination of properties makes TEFLON® PFA an excellent choice for a wide variety of uses, especially those involving chemical resistance. TEFLON® PFA is available in both water-based liquid and powder forms.

- TEFLON® MJ-501 PFA High Build Powder Topcoat Tan
- TEFLON® 532G-5010 PFA Powder Topcoat Clear
- TEFLON® 532G-5011 PFA Fine Particle Size Powder Topcoat Clear
- TEFLON® 532G-5310 PFA High Molecular Weight Powder Topcoat Clear
- TEFLON® 532G-7000 PFA Powder Topcoat Sparkling Clear
- TEFLON® 532G-7410 PFA High Molecular Weight Powder Topcoat Clear
- TEFLON® 532G-13032 PFA Reinforced Powder Topcoat Grey
- TEFLON® 532G-13054 PFA Permeation Resistant Powder Topcoat Ruby Red
- TEFLON® 858G-210 PFA High Build Liquid Topcoat Clear
- TEFLON® 858G-917 PFA Permeation Resistant Liquid Topcoat Ruby Red

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TEFLON® ETFE Coatings

ETFE is a copolymer of ethylene and tetrafluoroethylene and is also sold under the TEFZEL® trademark. Although not fully fluorinated, ETFE has excellent chemical resistance and can operate continuously at 149 C/300 F. This resin is the toughest of the fluoropolymers and can be applied at film builds up to 1,000 micrometers (40 mils) to provide a highly durable finish. TEFLON® ETFE is available in powder form.

- TEFLON® 532-6118 ETFE Permeation Resistant Powder Topcoat Beige
- TEFLON® 532-6200 ETFE Ultrasmooth Powder Topcoat White
- TEFLON® 532-6210 ETFE Ultrasmooth Powder Topcoat Clear
- TEFLON® 532-6310 ETFE High Build Powder Topcoat Clear
- TEFLON® 532-6314 ETFE High Build Powder Topcoat Green
- TEFLON® 699-205 ETFE Permeation Resistant Liquid Topcoat Pearl

TEFLON® One Coat Systems

These solvent-based liquid coatings are formulated with special blends of fluoropolymers and other highperformance resins to improve toughness and abrasion resistance. Because the film components stratify during baking, most of the fluoropolymer properties (such as low friction and nonstick character) are retained. The resins provide adhesion and abrasion resistance. These products can sometimes be applied to smooth, clean metal. Bake requirements vary, depending on the specific coating from 325F to 600F.

- TEFLON® 420G-104 PTFE Liquid FDA One Coat Gray
- TEFLON® 420G-109 PTFE Liquid FDA One Coat Sparkling Black
- TEFLON® 532-1003 FEP Powder One Coat Black
- TEFLON® 856G-114 FEP Liquid One Coat Conductive Green
- TEFLON® 954G-300 FEP Liquid One Coat Clear
- TEFLON® 954G-303 FEP Liquid One Coat Black
- TEFLON® 954G-304 FEP Liquid One Coat Green
- TEFLON® 958G-303 PTFE Liquid One Coat Black
- TEFLON® 958G-313 PTFE Reinforced Liquid One Coat Black
- TEFLON® 958G-406 PTFE Reinforced Liquid One Coat Black
- TEFLON® 958G-414 PTFE Reinforced Liquid One Coat Green
- TEFLON® 959G-203 FEP Liquid One Coat Black
- TEFLON® 959G-203 FEP Liquid One Coat Brown
- TEFLON® 959G-204 FEP LiquidOne Coat Green

TEFLON® Specialty Systems

These aqueous-based dispersions are specially blended multi-coat systems of TEFLON® PTFE (polytetrafluoroethylene), TEFLON® FEP (fluorinated ethylene propylene copolymer), and TEFLON® PFA (perfluoroalkoxy) to optimize performance characteristics through material synergy. Formulations are available with internal reinforcement materials in the coating matrix to increase abrasion resistance and extend service life.

- TEFLON® 857G-030 Liquid Primer Black
- TEFLON® 857G-230 Liquid Topcoat Black
- TEFLON® 855G-021 Liquid Primer Blue
- TEFLON® 857G-130 Liquid Midcoat Pewter
- TEFLON® 857G-135 Liquid Midcoat Black
- TEFLON® 857G -240 Liquid Topcoat Clear
- TEFLON® 857G-040 Liquid Primer Black
- TEFLON® 857G-140 Liquid Primer Black
- TEFLON® 857G-240 Liquid Topcoat Clear
- TEFLON® 953G-401 FEP Liquid Topcoat Clear
- TEFLON® 953G-506 FEP Liquid Primer Violet

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