

3M™ Dyneon™ Fluoroplastic Granules PFA FLEX8502UHPZ and PFA FLEX8515UHPZ

Features and Benefits

- Improved clarity
- Extremely low levels of extractable ions
- Smoother surfaces
- Flame resistance
- Temperature capability up to 240°C
- Excellent chemical resistance
- Significantly longer life in fluorosurfactant containing fluids

Note: Data in this document are not for specification purposes.

Typical Properties

Property	Test Method	8502UHPZ	8515UHPZ
Specific Gravity	ASTM D792	2.145 g/cc	2.145 g/cc
Melting Point	ASTM D4591	290°C (554°F)	290°C (554°F)
Melt Index 372°C/5 kg	ASTM D1238	2 g/10 min	15 g/10 min
Tensile Strength at Break (23°C)	ASTM D638	35 MPa (5,075 psi)	34 MPa (4,930 psi)
Elongation at Break (23°C)	ASTM D638	330%	350%
Limiting Oxygen Index (LOI)	ASTM D2863	>95%	>95%
Water Adsorption, 24 hr	ASTM D150	<0.5%	<0.5%
Dielectric Constant, 1 MHz	ASTM D150	2.02 - 2.08%	2.02 - 2.08%
Dissipation Factor, 1 MHz	ASTM D150	< 0.0003	< 0.0003
Flexural Modulus	ASTM D790	600 MPa (87,000 psi)	600 MPa (87,000 psi)

Product Description

3M™ Dyneon™ PFA FLEXUHPZ series exhibits improved environmental stress crack resistance (ESCR) to stress cracking agents such as fluorosurfactants and fluorosurfactant-containing chemicals. In addition, this series offers very low levels of extractable ions, making it ideal for critical semiconductor wet chemical processes. 3M offers two grades in its PFA FLEX product line: PFA FLEX8502UHPZ for tubing applications and PFA FLEX8515UHPZ for injection molding applications.

Product Form and Packaging

These products are supplied in pellet form utilizing high purity packaging techniques. Product is supplied in 25 kg (55 lb.) quantities, and utilizes a sealed, heavy-duty plastic bag inside a lined polyethylene drum that provides structural integrity and convenient storage without cardboard fiber contamination. The clean inner bag may be taken out and transferred into the molding area.

Storage and Material Handling

PFA FLEX8502UHPZ and PFA FLEX8515UHPZ can be stored for a relatively long period of time provided they are stored in a clean, dry place. PFA FLEX8502UHPZ and PFA FLEX8515UHPZ are hydrophobic, and generally do not require drying before processing unless high humidity conditions create surface moisture adsorption. Opened containers should be tightly resealed to prevent dust contamination from static charge accumulation and moisture ingress.

Safety/Toxicology

These are fluoroplastic materials, so normal precautions observed with fluoroplastics should be followed. Before processing these products, be sure to read and follow all precautions and directions for use contained in the product label and the Safety Data Sheet and follow all label directions and handling precautions. General handling/processing precautions include: (1) Process only in well-ventilated areas; (2) Do not smoke in areas contaminated with powder/residue from these products; (3) Avoid eye contact; (4) After handling these products wash any contacted skin with soap and water. Potential hazards, including evolution of toxic vapors, can exist if processing occurs under excessively high temperature conditions. Appropriate exhaust ventilation such as vapor extractor units should be installed above processing equipment. When cleaning processing equipment, do not burn off any of these products with an open flame or in a furnace.



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