

# 3M™ Dyneon™ Fluoroplastic PVDF 31508/0003

## Features and Benefits

- Copolymer of VF<sub>2</sub> and CTFE
- Ultra-flexible
- Very low shrinkage rates
- Wide operating temperature window
- Processable using a variety of thermoplastic conversion techniques
- Excellent low flame and low smoke performance

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

## Typical Properties

Property	Test Conditions	Test Method	
Density		ISO 1183	1.76 g/cm <sup>3</sup>
H <sub>2</sub> O Absorption	24hr @ 23°C	ISO 62 (method 1)	<0.04%
Melt Flow Index	230°C, 5 kg	ASTM D1238	15 g/10 min
	230°C, 2.16 kg	ASTM D1238	5 g/10 min
Tensile Strength at Break	23°C, 50 mm/min	ASTM D638	22 MPa (3,190 psi)
Elongation at Break	23°C, 50 mm/min	ASTM D638	475%
Flexural Modulus	23°C, 2 mm/min	ASTM D790	425 MPa (61,625 psi)
Melting Point (Crystallinity by DSC)		ASTM D3418	169°C (336°F)
Brittleness Temperature		ASTM D746A	-37°C (-35°F)
Surface Resistivity, Voltage < 1V, after 2 Minutes – 500V	23°C	ASTM D257	
		DIN 53483	≥10 <sup>14</sup> ohm.square
Volume Resistivity, Intensity = 10 mA, after 2 Minutes	23°C	ASTM D257	
		DIN 53483	≥10 <sup>14</sup> ohm.cm
Dielectric Constant	1 MHz	ASTM D150	7
UL - 94 Flammability Test		UL-94	V-O Class
Limiting Oxygen Index (LOI)(sheet 3 mm Thick)		ASTM D2863	65%

## Product Description

3M™ Dyneon™ PVDF 31508/0003 is a flexible copolymer of VF<sub>2</sub> and CTFE, exhibiting very low shrinkage and excellent impact resistance. PVDF 31508/0003 also has a very low brittleness temperature, for excellent low temperature performance. This material is ideal for insulation and buffering materials for wire and cable applications and for tubing. PVDF 31508/0003 has excellent flame and smoke performance, with an LOI of 65. PVDF 31508/0003 is designed for high speed extrusion, and can be processed using a variety of conventional thermoplastic conversion techniques. As with all PVDF grades, PVDF 31508/0003 also possesses very good chemical and temperature resistance.

## Storage and Material Handling

PVDF 31508/0003 has an unlimited shelf life provided it is stored in a clean, dry place in its original, unopened container. PVDF 31508/0003 is hydrophobic, and

generally does not require drying before processing unless high humidity conditions create surface moisture adsorption.

## Safety/Toxicology

This is a fluoroplastic material so normal precautions observed with fluoroplastics should be followed. Before processing this product, read the product label and Material Safety Data Sheet. Follow all precautions and directions for use. 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.



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