

3M Advanced Materials Division

# 3M™ Dyneon™ Fluoroplastics PVDF 6008/0001

## Features and Benefits

- Excellent chemical resistance to a variety of aggressive fluids and solvents
- Smooth, anti-fouling surfaces
- Good permeation resistance
- Injection molding grade
- Excellent strength and dimensional stability

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

## Typical Properties

Property	Test Conditions	Test Method	Dyneon PVDF 6008/0001
Specific Gravity		ISO 1183	1.78
Melt Flow Index	230°C, 5 kg	ASTM D1238	24 g/10 min
	230°C, 2.16 kg	ASTM D1238	8 g/10 min
Tensile Strength at Yield	23°C, 50 mm/min	ASTM D638	55 MPa 7975 psi
Tensile Strength at Break	23°C, 50 mm/min	ASTM D638	42 MPa 6090 psi
Elongation at Yield	23°C, 50 mm/min	ASTM D638	7%
Elongation at Break	23°C, 50 mm/min	ASTM D638	35%
Flexural Modulus	23°C, 2 mm/min	ASTM D790	2200 MPa
			319,000 psi
Melting Point (Crystallinity by DSC)		ASTM D3418	174°C (345°F)
Deflection Temperature (4 mm Thick)	Load 0.46 MPa, after annealing	ASTM D648	147°C (297°F)
	Load 1.82 MP	ASTM D648	112°C (234°F)
Molding Shrinkage			3%
UL - 94 Flammability Test		UL - 94	V-0 Class
Limiting Oxygen Index (LOI)(Sheet 3 mm Thick)		ASTM D2863	44%

## Product Description

Polyvinylidene Fluoride (PVDF) is ideal for multiple applications across a wide array of industries. Widely used in the chemical process industry, wire and cable industry, semiconductor industry, and oil and gas industry, PVDF is also gaining recognition in automotive, building, electronics, pharmaceutical and batteries.

3M™ Dyneon™ PVDF 6008/0001 is easily processed under a variety of conventional thermoplastic conversion techniques, being particularly suitable for extrusion. PVDF 6008/0001 is inherently pure and chemically resistant against a variety of aggressive fluids and solvents. PVDF 6008/0001 exhibits excellent dimensional stability, abrasion resistance and high strength, and maintains its mechanical properties at elevated temperature.

## Storage and Material Handling

3M™ Dyneon™ Fluoroplastic PVDF 6008/0001 should be stored in a clean, dry, uncontaminated place with packaging intact. Dyneon PVDF generally does 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. The shelf life of this product has not been determined. If the user has any question about whether significant property change(s) have occurred due to an extended storage period, please contact 3M.

## Safety/Toxicology

This is a fluoroplastic material so normal precautions observed with fluoroplastics should be followed. Before processing this product, be sure to read and follow all precautions and directions for use contained in the product label and the Safety Data Sheet. General handling/processing precautions include: (1) Process only in well ventilated areas; (2) Do not smoke in areas contaminated with powder/residue from this product; (3) Avoid eye contact; (4) After handling this product 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 local exhaust ventilation such as vapor extractor units should be installed above processing equipment. When cleaning processing equipment, do not burn off any of this product with an open flame or in a furnace.

Please visit [3M.com/fluoropolymers](http://3M.com/fluoropolymers) for additional regional contact information.

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