

Dyneon™

Fluoroplastic

PVDF 6012/0000

Features and Benefits

- Excellent chemical resistance to a wide variety of aggressive fluids and solvents
- Good permeation resistance
- Excellent strength and dimensional stability
- Extrusion or compression molding grade

Typical Properties (Data not for specification purposes)

	Test Conditions	Test Method	Unit	Value
Form:	Powder			
Density		ISO 1183	g/cm ³	1.78
H ₂ O absorption	24hr @ 23°C	ISO 62 (method 1)	%	<0.04
Melt Flow Index	230°C, 5kg	ASTM D 1238	g/10 min	6
	230°C, 2.16kg	ASTM D 1238	g/10 min	2
Tensile stress at yield	23°C, 50mm/min	ASTM D 638	MPa	55
			psi	7975
Tensile stress at break	23°C, 50mm/min	ASTM D 638	MPa	42
			psi	6090
Elongation at yield	23°C, 50mm/min	ASTM D 638	%	7
Elongation at break	23°C, 50mm/min	ASTM D 638	%	35
Flexural modulus	23°C, 2mm/min	ASTM D 790	MPa	2100
			psi	304,500
Melting point (crystallinity by DSC)		ASTM D 3418	°C (°F)	173 (343)
Deflection temperature (4 mm thick)	Load 0.46 MPa, after annealing	ASTM D 648	°C (°F)	148 (298)
	Load 1.82 MPa	ASTM D 648	°C (°F)	108 (226)
Limiting oxygen index (sheet 3mm thick)		ASTM D 2863	%	44

Introduction

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 battery applications.

Dyneon™ PVDF 6012/0000 is a high molecular weight homopolymer, suitable for extrusion or compression molding into pipes, tubes, sheets, and slabs. PVDF is inherently pure and chemically resistant to a wide array of aggressive media. This grade exhibits excellent thermal and dimensional stability, high strength, and maintains its mechanical properties at elevated temperatures.



Storage and Material Handling

Dyneon™ PVDF 6012/0000 has an unlimited shelf life provided it is stored in a clean, dry place. Dyneon™ PVDF 6012/0000 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 Material Safety Data Sheet and label. Follow all 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.

Technical Information and Test Data

Technical information, test data, and advice provided by Dyneon personnel are based on information and tests we believe are reliable and are intended for persons with knowledge and technical skills sufficient to analyze test types and conditions, and to handle and use raw polymers and related compounding ingredients. No license under any Dyneon or third party intellectual rights is granted or implied by virtue of this information.

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