

3M Advanced Materials Division

3M™ Dyneon™ Fluoroplastics PVDF 11010/0000

Features and Benefits

- Good flexibility and mechanical strength in extruded tubing
- Flareability of extruded tubing
- Good chemical resistance to acids, bases, alcohols

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

Typical Properties

Property	Test Conditions	Test Method	Dyneon PVDF 11010/0000
Specific Gravity		ISO 1183	1.78
	230°C, 10 kg	ASTM D1238	
Melt Flow Index	230°C, 5 kg	ASTM D1238	6 g/10 min
	230°C, 2.16 kg	ASTM D1238	2 g/10 min
Tensile Strength at Yield	23°C, 50 mm/min	ASTM D638	27 MPa (3,990 psi)
Tensile Strength at Break	23°C, 50 mm/min	ASTM D638	30 MPa (4,350 psi)
Elongation at Break	23°C, 50 mm/min	ASTM D638	400%
Flexural Strength	23°C, 50 mm/min	ASTM D790	37 MPa (3,990 psi)
Flexural Modulus	23°C, 2 mm/min	ASTM D790	900 MPa (130,500 psi)
Melting Point		ASTM D3418	160°C (320°F)
Deflection Temperature	Load 0.46 MPa	ASTM D648	100°C (212°F)
	Load 1.82 MPa	ASTM D648	52°C (126°F)
UL - 94 Flammability Test		UL-94	V-O Class
Limiting Oxygen Index (LOI) (Sheet 3 mm Thick)		ASTM D2863	44%

Product Description

3M™ Dyneon™ PVDF 11010/0000 is a copolymer of VF₂ and HFP (hexafluoropropylene). Recommended for flared tubing, it combines excellent chemical resistance, and dimensional stability with a moderate degree of flexibility. 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, food processing, and pharmaceutical equipment and battery applications.

Product Features

PVDF 11010/0000 has excellent chemical resistance to most aggressive substances and solvents. As with all PVDF products, 11010/0000 has outstanding mechanical strength and toughness, high abrasion resistance, exceptional aging resistance, resistance to UV and nuclear radiation, and



low permeability to most gases and liquids. Additionally, PVDF 11010/0000 can be processed via most standard melt extrusion techniques and produces smooth, anti-fouling surfaces. PVDF 11010/0000 possesses excellent low flame and low smoke properties and is capable of operating in temperatures up to 150°C.

Storage and Material Handling

PVDF 11010/0000 has an unlimited shelf life provided it is stored in a

clean, dry place. PVDF 11010/0000 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 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.

Please visit 3M.com/fluoropolymers for additional regional contact information.

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