

# **KYNAR® PVDF**

### **Un-backed Sheets and Fabric-backed Rolls**

HFPM offers extruded PVDF as standard sheets and in fabric-backed rolls and sheets in both copolymer Kynar<sup>®</sup> Flex (2850 and 2800) and homopolymer 740 resins. Suitable for wetted parts in semiconductor process applications, it sees widespread use in systems using concentrated acids and ultra-pure water, offering corrosion and chemical resistance at both ambient and elevated temperatures.

	Property	ASTM Spec	Unit	Homopolymer (740)	Kynar Flex (2850)	Kynar Flex (2800)
	Specific Gravity	D 792	_	1.78	1.78	1.78
Environment	Water Absorption	D570	%	<0.03	<0.05	<0.05
	Abrasion Resistance	Taber CS 17	mg/1000	7.5	7	7
	Oxygen Index	D2863	%	44	43	42
	Flammability	UL 94	—	V-0	V-0	V-0
		FM 4910	_	—	—	—
	Coefficient of Friction	C1894	Static	0.2	0.26	0.26
		C1894	Dynamic	0.14	0.19	0.19
Mechanical	Tensile Strength (yield)	D1708, D638	psi	6000	5000	5000
	Elongation (break)	D1708, D638	%	100	300	300
	Flexural Modulus	D790 @ 23 C	psi	195000	170000	170000
	Notched Izod Impact	D256 @ 23 C	ft-lb/in.	3	5	5
	Shore D Hardness	D2240	_	78	72	72
Thermal	Continuous Service Temperature	Maximum	°C	127	123	123
			°F	261	253	253
	Melting Point	D3418	°C	170	158	158
		D3418	°F	338	316	316
	Vicat Softening Point	D1525	°C	—	—	—
		D1525	°F	—	—	—
	Coefficient of Expansion	E831 TMA	in/in/°F (10 <sup>-5</sup> )	7.2	8.5	8.5
	Deflection Temp (66psi)	D648	°C	140	124	124
		D648	°F	284	255	255
	Deflection Temp (264psi)	D648	°C	118	—	—
		D648	°F	244	—	—

## ADVANTAGES

- Good Corrosive Resistance
- High purity
- Temperature resistance
- Smooth, low friction surface
- Easy to fabricate and weld

#### PROVEN APPLICATIONS

- Corrosive chemical storage
- Semicon wet process tools, tanks and components
- Tank & Reactor Vessels
- UPW water systems

#### **UNBACKED SHEETS**

- Sheet sizes: 2'x4', 4'x8', 4'x10'
- Sheet extruded gauge: 1/8" 2" (3mm – 50mm)

#### FABRIC-BACKED ROLLS

- Roll size: 48"x600" (50')
- Roll extruded gauges: 0.060" – 0.235" (1.8mm – 6mm)

#### BACKINGS

- Polyester
- Aramid
- PAN (custom)

\* Continuous Service Temperature based upon "non-chemical Dry Usage." Table data reflects ASTM based average typical vendor data. Data meant as general guidelines only. Specific applications require additional testing by the buyer. All properties based on standard unbacked product tests only.

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