

SIMONA® PVDF 740 Sheet
SIMONA® PVDF-C 2850 Sheet
SIMONA® PVDF 1000 Rod

Exceptional resistance to acids and ultra-pure water. FM 4910 and UL 94 V-0 flammability test compliance for semiconductor cleanroom and electrical equipment.



SIMONA® developed two grades of PVDF (polyvinylidene fluoride) sheet for diverse chemical process and semicon wet bench equipment. PVDF 740 Sheet offers higher stiffness and temperature resistance. PVDF-C 2850 copolymer sheet has more impact resistance and flexibility. Both perform well in many chemical environments, and are exceptionally resistant to concentrated acids and ultra-pure water (UPW) even at elevated temperatures.

SIMONA PVDF 1000 rod, also FM 4910 listed, is available in diameters up to 19.7 in. (500 mm) to cover a wide range of machined part sizes and configurations.

For weld integrity and compatibility, SIMONA manufactures weld rod made from the same resin used in the production of each fluoropolymer sheet product, including PVDF grades. Both PVDF grades can also be welded to SIMONA® PVC Type I CRP-1, also FM 4910 listed, using SIMONA's proprietary hybrid welding rod.

From PVC and polypropylene to fluoropolymers, SIMONA offers the widest range of sheet for semicon and other chemical processing environments from 160°F to over 425°F (70° to 218°C).

Advantages

- PVDF 740, PVDF 1000 FM 4910 listed
- PVDF 740, PVDF 2850 meet UL 94 V-0 criteria
- Service temperatures to 250°F (121°C)
- Exceptional UPW and acid resistance
- High gloss sheet surface
- Welds to SIMONA PVC CRP-1 with JSR weld rod

Applications

- Semicon process tanks, components
- Chemical process tanks, components
- Wetted parts
- Fume hoods, ducting
- DI water and acid etch systems
- Scientific and laboratory equipment

Configurations

- Sheet sizes
 - 48 x 96 in. (1,220 x 2,440 mm)
 - 48 x 48 in. (1,220 x 1,220 mm)
 - 24 x 48 in. (610 x 1,220 mm)
- Gauges
 - PVDF 740: 0.125 to 2.0 in. (3.17 to 50.8 mm)
 - PVDF-C 2850: 0.250 to 2.0 in. (6.34 to 50.8 mm)
 - Gauges vary by sheet size
- Rod diameters
 - 0.039 to 19.7 in. (10 to 500 mm)
- Custom Sizes
 - Available on request
- Color
 - Natural (off white)
- Weld materials: PVDF
 - Round rod 0.118, 0.156 in. (3.0, 4.0 mm)
 - 0.197 in. (5.0 mm) also available for SIMONA® PVDF-C 2850
 - Cap strip 0.375, 0.625 in. (9.52, 15.9 mm)



PROPERTIES: SIMONA® PVDF SHEET AND ROD

PROPERTY, unit of measure ¹	Test Method	TYPICAL VALUES		
		SIMONA® PVDF 740	SIMONA® PVDF-C 2850	SIMONA® PVDF 1000
Specific Gravity	ASTM D792	1.78	1.78	1.78
Water Absorption, %	ASTM D570	<0.03	<0.05	—

MECHANICAL

Tensile Strength @ yield	ASTM D638	6,000 psi (41.4 MPa)	5,000 psi (34.5 MPa)	7,900 psi (54.5 MPa)
Elongation @ break, %	ASTM D638	65	110	—
Flexural Modulus	ASTM D790	195,000 psi (1,345.5 MPa)	170,000 psi (1,173 MPa)	—
Notched Izod Impact	ASTM D256	1.0 ft-lb/in. (53.4 J/m)	3.0 ft-lb/in. (160.2 J/m)	—
Hardness, Shore D	ASTM D2240	78	72	—

THERMAL

Continuous Service Temperature	Maximum	261 °F (127.3 °C)	253 °F (122.9 °C)	—
Melting Point	ASTM D3418	338 °F (170 °C)	316 °F (157.9 °C)	338-341 °F (170-172 °C)
Coeff. of Expansion x10 ⁻⁵	ASTM D696	7.2 in./in., °F (13 mm/mm, °C)	8.5 in./in., °F (15.3 mm/mm, °C)	7.2 in./in., °F (13 mm/mm, °C)
Heat Deflection Temp. @ 66 psi (0.45 MPa)	ASTM D648	284 °F (140 °C)	255 °F (124 °C)	284 °F (140 °C)
Heat Deflection Temp. @ 264 psi (1.8 MPa)	ASTM D648	244 °F (117.9 °C)	120 °F (48.9 °C)	—

FLAMMABILITY

	UL 94	V-0	V-0	—
	FM 4910	Yes	—	Yes

¹All tests at 73° F (22.8° C) in dry conditions unless otherwise noted.

**SIMONA® CHEMICAL RESISTANT
FM 4910 AND UL 94 VO COMPLIANT
SHEET PRODUCTS**

Fluoropolymers

- SIMONA® PVDF 740 homopolymer
- SIMONA® PVDF-C 2850 copolymer¹
- SIMONA® E-CTFE 901
- SIMONA® E-CTFE 902²
- SIMONA® PFA-M 1520³

Type I PVC, CPVC and polypropylene

- SIMONA® PVC Type I CRP-1
(high impact strength)
- SIMONA® PVC Type I VS-1
- SIMONA® Polypropylene FRP-3
- SIMONA® Polypropylene FR-PP¹
- SIMONA® CPVC 2000 - clear blue
- SIMONA® CPVC 4225 - opaque white
- SIMONA® CPVC 4125¹ - light gray

¹UL94 VO only. Not FM 4910 listed.

²FM 4910 approved-limited use.

³Accepted by FM as fully fluorinated material meeting 4910: no listing required.



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Curbell Plastics is a proud supplier of SIMONA America materials.

SIMONA offers the widest product range of PVC sheet and rod – FM 4910 rated sheet – chemical resistant materials from PVC, PP and PE to fluoropolymers – orthotics and prosthetics sheet – Boltaron® aircraft sheet – plus proven products for boat building, outdoor furniture and many other industries.

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