

High Performance PVDF Sheet Products for Critical Applications



Where Safety and Environmental Protection are Paramount

In critical applications that require the management of aggressive chemicals, safety and reliability are top priorities. That's why experts at SIMONA recommend corrosion resistant, high performance PVDF extruded from Arkema Kynar® resin.

Offering 3 High-Performing Grades of PVDF:

- SIMONA® PVDF homopolymer sheet made with Kynar® 740
- SIMONA® PVDF-C copolymer sheet made with Kynar Flex® 2850
- SIMONA® PVDF-HD high ductility copolymer sheet made with Kynar Flex® 2800



Provide solutions that outperform in the most difficult environments


- Exceptional resistance to acids, solvents and oxidizers
- Withstands service temperatures up to 300° F (149° C)
- Reliable performance for chemical handling and storage in ultra pure and contaminant-free environments
- FM 4910 compliant grade available
- Meets UL 94 V-0 criteria
- Outperforms metals in many corrosive applications
- Low cost of ownership

Versatility in Many Engineering Applications

Extruded from Kynar® resin, SIMONA® PVDF sheet and rod products provide solutions for highly demanding applications in the chemical processing industry that effectively counteract damage due to corrosion, extend the life of service equipment, and improve operational safety.

These are just a few examples from an extensive range of engineering applications where SIMONA® PVDF was used as material of construction and exceeded performance requirements.

Product Range

	SIMONA® PVDF	SIMONA® PVDF-C, PVDF-HD
Extruded sheets		
	48 x 96 in. (1,220 x 2,440 mm)	0.125 to 2.0 in. (3.17 to 50.8 mm)
	48 x 48 in. (1,220 x 1,220 mm)	
	24 x 48 in. (610 x 1,220 mm)	
Colors	Natural (off white)	Natural (off white)

Custom gauges and thicknesses available on request

+ Chemical Tank Construction

Provides corrosion resistant barriers designed for chemical processing equipment, such as acid storage, pickling and galvanizing tanks

PVDF, PVDF-C

- Chemical resistant
- Heat resistant
- Withstands demanding heat cycles

+ Biotechnology and Laboratory Engineering

Adheres to safety requirements for laboratory equipment, cabinetry and fume hoods

PVDF, PVDF-C, PVDF-HD

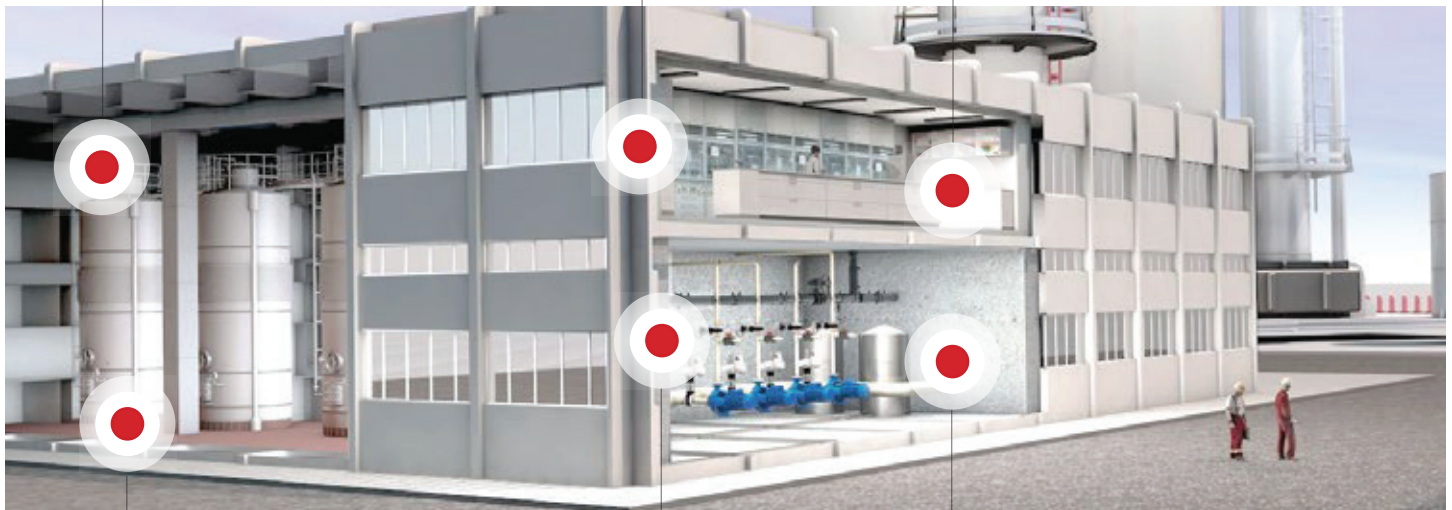
- Non-contaminating in chemical environments
- High mechanical strength

+ Semiconductor Processing Equipment

Meets demanding semiconductor cleanroom, wet process and electrical equipment conditions

PVDF, PVDF-C, PVDF-HD

- FM 4910 grade available
- Compatible with the needs of ultra pure water systems
- Meets UL 94 V-0 criteria



+ Chemical Tank Linings

Aramid, glass, PAN and polyester fabric backed linings adhere to steel or dual laminates to form a continuous purity, corrosion barrier

PVDF, PVDF-C, PVDF-HD

- Low permeability
- High ductility
- Long lasting

+ Waste Processing and Drainage Systems

Maintains corrosive chemical waste streams in plant facilities, laboratories and food and beverage applications

PVDF, PVDF-C, PVDF-HD

- Low permeability
- Thermal stability
- Minimal maintenance

+ Pumps and Valves

Performs at high temperatures in corrosive environments for long lasting pump and valve components

PVDF, PVDF-C

- Abrasion resistant
- Flexible sheet size capabilities for ease of engineering

Consistent, High Quality Sheet Products

A key factor in favor of using plastics over metal in engineering and plant construction is proven resistance to a large number of harsh chemicals.

Chemical Resistance Guide

A complete chemical resistance guide is available for recommended temperature and usage properties.

SIMONA® PVDF protects against these common chemicals:

acetic acid	deionized water	methyl alcohol
acid mixtures	hydrobromic acid	methyl chloroform
biodiesel	hydrochloric acid	phosphoric acid
bromine	hydrofluoric acid	nitric acid
bromobenzene	hot sugars	salicylic acid
chlorine	iodine	salt water
chlorobenzene	metallic chlorides	sodium hypochlorite
chromic acid	methane sulfuric acid	sulfuric acid

+ Petrochemical Facilities

Withstands a mixture of chemicals in biodiesel and petroleum processing industries

PVDF, PVDF-C, PVDF-HD

- Low permeability
- Chemical resistant
- High mechanical strength

+ Food Processing Operations

Offers long term performance in applications that require compliance to food and beverage regulations

PVDF, PVDF-C, PVDF-HD

- Complies with NSF-61 and FDA test protocol
- Compatible with ultra pure water systems
- Easy to clean

+ Mining Applications

Meets friction and fluid handling challenges in abrasive mining conditions

PVDF, PVDF-C, PVDF-HD

- Abrasion resistant
- Exceptional resistance to acids and oxidizers
- Contributes to durability of equipment



+ Tanker and Railcar Linings

Provides stability and safe transport of harsh or hazardous fluids

PVDF-C, PVDF-HD

- Low permeability
- Chemical resistant
- Provides road noise absorption

+ Scrubbers

Demonstrates low permeability characteristics for use with most gases and liquids

PVDF, PVDF-C, PVDF-HD

- Chemical resistant
- Superior physical properties
- High temperature cycle lifetime

+ Nuclear Plants

Resistant to acids, extremely hazardous environments

PVDF, PVDF-C, PVDF-HD

- High thermal stability
- Exceptional chemical resistance
- Radiation resistant

Chemical Resistance at Service Temperatures up to 300 °F (149 °C)

					DESCRIPTION	WELDING ROD	SEMICON FM 4910	UL 94 V-0*	FABRIC-BACKED LAMINATES
	STRONG ACIDS	STRONG BASES	SOLVENTS	STRONG OXIDIZERS					
SIMONA® PVDF Homopolymer					Superior physical properties and temperature resistance over copolymer grades.				
SIMONA® PVDF-C Copolymer					Tougher and more flexible than PVDF homopolymer. Ideal for fabrication.				
SIMONA® PVDF-HD Copolymer					High ductility. Easiest grade for fabrication. Energy dampening. Offers greatest flexibility.		*		

* Arkema maintains FM 4910 listing for Kynar Flex® 2800 resin. Consult your sales representative for more information. Independently tested to meet UL 94 V-0 criteria.
 ■ Symbol indicates availability.

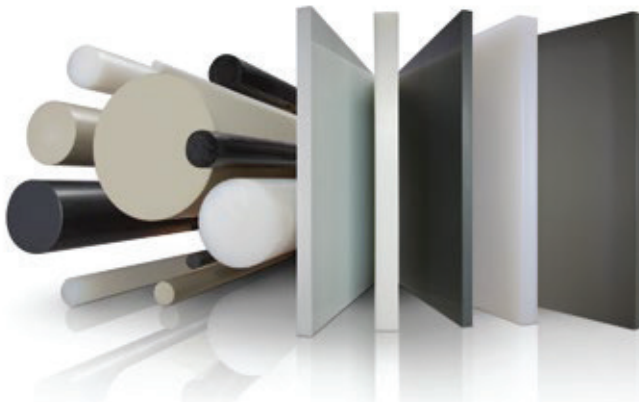
- Natural, off white color
- High gloss sheet surface
- Fabric backed sheet available for dual laminates
- Welding rod available made from the same resin
- SIMONA® PVDF sheet and rod made with Kynar® 1000 also available, manufactured in Germany

Benefit from Our Joint Experience and Technical Expertise

SIMONA and Arkema combine more than 100 years of experience in high performance thermoplastics

With a history of quality and innovation in corrosion resistant materials, our two companies serve customers worldwide in chemical processing and semiconductor manufacturing industries.

www.kynar.com



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

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