

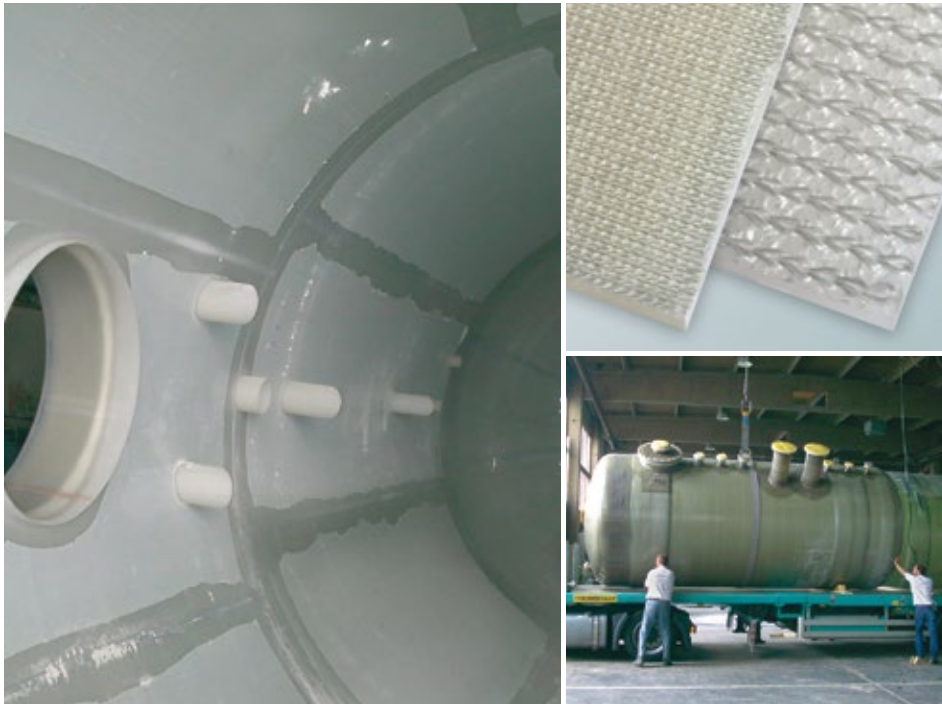
## SIMONA® PFA-M 1520

*Fabric Backed Lining Laminate Sheet and Roll Products*

**Withstands the full range of chemicals at high service temperatures.**

**High purity, exceptional stress-crack resistance and superior MIT flex life.**

**Fabric backings: Aramid, glass**



SIMONA® PFA-M sheet is a premium performance material that resists the full gamut of chemical families. It offers significantly higher service temperatures than PVDF and E-CTFE.

The material's performance benefits also include exceptional purity and dielectric properties, and resistance to aging and physical property deterioration from outdoor exposure.

The extruded sheet affords high strength and stiffness, and its surface gloss reduces nucleation sites, thus lowering deposit and scale formation in chemical processes and mining applications. SIMONA PFA-M is also noted for its toughness and flexibility due to its extremely high MIT flex life.

In forming and fabrication, the sheet is highly consistent and dimensionally stable. Also, for weld integrity and compatibility, SIMONA offers weld rod made from the same resin grade used in the production of each lining laminate sheet and roll product.

### Advantages

- Higher service temperature than PVDF, E-CTFE
- Inert to full range of chemicals
- Smooth, high gloss non-stick surface
- Excellent electrical properties
- Non-aging

### Applications

- Highly corrosive acid storage
- Heated reactor vessels
- Pulp and paper production
- Alkaline treatment systems

### Configurations

- Rolls
  - Width 48 in. (1,220 mm)
  - Length 50 ft (15.24 m)
- Sheet
  - 48 x 96 in. (1,220 x 2,440 mm)
- Custom length sheet, rolls on request
- Gauges; sheet and rolls
  - 0.090, 0.118 in. (2.3, 3.0 mm)
- Color
  - Natural – opalescent/translucent
- Weld materials: PFA-M
  - Round rod 0.137 in. (3.5 mm)
- Fabric backing
  - AK – Aramid
  - GK – Glass



Photo courtesy George Fisher

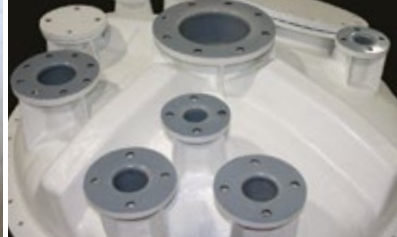


Photo courtesy Composites USA

## PROPERTIES

PROPERTY, Units of Measure <sup>1</sup>	Test Method	TYPICAL VALUES <sup>2</sup>	
		SIMONA® PFA-M 1520	
Specific Gravity	ASTM D792	2.15	
Water Absorption, %	ASTM D570	—	

## MECHANICAL

Tensile Strength @ Yield	ASTM D638	2,300 psi	15.9 MPa
Elongation @ Break, %	ASTM D638	300	
Flexural Modulus	ASTM D790	72,000 psi	496.8 MPa
Notched Izod Impact	ASTM D256	No break	
Hardness, Shore D	ASTM D2240	57	
Abrasion Resistance mg/1000	Taber CS 17	—	
Coefficient of Friction (static/dynamic)	ASTM C1894	—	

## THERMAL

Continuous Service Temperature	Maximum	425 °F	218.5 °C
Melting Point	ASTM D3418	518 °F	270.2 °C
Coeff. of Expansion x10 <sup>-5</sup>	ASTM D696	9.0 in./in., °F	16.2 mm/mm, °C
Heat Deflection Temp. @ 66 psi (0.45 MPa)	ASTM D648	—	—
Heat Deflection Temp. @ 264 psi (1.8 MPa)	ASTM D648	—	—

## FLAMMABILITY

	UL 94	V-0	
	FM 4910	Yes <sup>3</sup>	

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

<sup>2</sup>Property values apply to un-backed sheet.

<sup>3</sup>Accepted by FM as fully fluorinated material meeting 4910: no listing required.

SIMONA's versatile corrosion resistant sheet and fabric backing combinations withstand an exceptionally wide range of aggressive chemicals and temperatures.

## SIMONA LINING LAMINATES: SHEET & ROLLS

Material	SIMONA Product	Fabric Backing Available			
		AK	GK	NK	SK
Polypropylene Copolymer	SIMONA® PP-R	■	■	■	■
High Molecular Wt. Polyethylene	SIMONA® PE 100	■	■	■	■
PVDF Homopolymer Copolymer High Ductility Copolymer	SIMONA® PVDF 740	■	■	■	■
	SIMONA® PVDF-C 2850	■	■	■	■
	SIMONA® PVDF-HD 2800	■	■	■	■
E-CTFE 901 - Standard 902 - Forming Grade	SIMONA® E-CTFE 901	■	■	■	■
	SIMONA® E-CTFE 902	■	■	■	■
E-TFE	SIMONA® E-TFE 2183	■	■		
PFA-M (Mid Range Temp. Service)	SIMONA® PFA-M 1520	■	■		

Key: AK = Aramid; GK = Glass; NK = PAN (polyacrylonitrile); SK = Polyester



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.

### DISCLAIMER AND LIMITATION OF WARRANTY:

All information contained herein is believed by SIMONA AMERICA Industries to be reliable. Typical properties are based on laboratory tests conducted on material samples in accordance with standard test methodology. SIMONA AMERICA Industries makes no express or implied warranty that its products will perform in accordance with the data in all conditions and circumstances. To determine suitability for use, users must test applications under actual operating conditions. As a result, ALL EXPRESS OR IMPLIED WARRANTIES IN CONNECTION WITH SIMONA AMERICA Industries and SIMONA Boltaron Inc. PRODUCTS INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED.

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