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### Typical Property Values of Nominal FEP and PFA Material\*

Property	Standard	FEP	PFA
General			
Wall Thickness		.020" (0.5 mm)	.020" (0.5 mm)
Approx. Shrinkage %		20%-25%	20%-25%
Shrinkage Temperature		250°F (121°C) to 400°F (204°C)	250°F (121°C) to 400°F (204°C)
Specific Gravity		2.15	2.15
Water Absorption		0.01%	0.03%
Coefficient of Friction, Dynamic	D1894	0.2	0.2
Durometer		53 Shore D	53 Shore D
Thermal			
Melting Point		500°F (260°C)	580°F (304°C)
Continuous Service Temp.	UL746B	400°F (294°C)	480°F (249°C)
Coefficient of Linear Thermal Expansion		5.5 x 10 <sup>-5</sup> in./in./deg. F (9.4 x 10 <sup>-5</sup> mm/mm/deg. C)	5.5 x 10 <sup>-5</sup> in./in./deg. F (9.4 x 10 <sup>-5</sup> mm/mm/deg. C)
Coefficient of Thermal Conductivity		1.35 BTU/in./hr./sq. ft./deg.F (0.195 W/m/k)	1.65 BTU/in./hr./sq. ft./deg. F (0.24 W/m/k)
Coefficient Flame Rating	UL94	VO	VO
Chemical	FEP and PFA fluorocarbons are chemically inert and solvent resistant to virtually all chemicals except molten alkali metals, fluorine at elevated temperatures, and certain complex halogenated compounds such as chlorine trifluoride at elevated temperatures and pressures.		
Mechanical			
Tensile Strength (at break) @ 73°F (23°C)		3000 psi (21 N/mm <sup>2</sup> )	4000 psi (28 N/mm <sup>2</sup> )
Elongation		300%	300%
Flex life, cycles			
73°F (23°C)		80,000	500,000
200°F (93°C)		80,000	1,500,000
300°F (149°C)		50,000	5,000,000
Electrical			
Dielectric Constant	D150	2.1	2.1
Volume Resistivity	D257	1 x 10 <sup>5</sup> 18 ohm-cm (1 x 10 <sup>5</sup> 16 ohm-m)	1 x 10 <sup>5</sup> 18 ohm-cm (1 x 10 <sup>5</sup> 16 ohm-m)

Nominal Roll Cover Diameters**		
Tube Diameter	Roll Diameter Range	
1" (25.4 mm)	0.88" (22.4 mm)	1.08" (27.4 mm)
1.25" (32 mm)	1" (25.4 mm)	1.3" (33.0 mm)
1.5" (38 mm)	1.3" (33.0 mm)	1.7" (43.2 mm)
2" (51 mm)	1.7" (43.2 mm)	2.1" (53.3 mm)
2.5 (64 mm)	2.1" (53.3 mm)	2.6" (66.0 mm)
3" (76 mm)	2.6" (66.0 mm)	3.1" (78.7 mm)
3.5" (89 mm)	3.1" (78.7 mm)	3.5" (88.9 mm)
4" (102 mm)	3.5" (88.9 mm)	4.3" (109 mm)
5" (127 mm)	4.3" (109 mm)	5.2" (132 mm)
6" (152 mm)	5.2" (132 mm)	6.2" (157 mm)
7" (178 mm)	6.2" (157 mm)	7.2" (183 mm)
8" (203 mm)	7.2" (183 mm)	8.3" (211 mm)
9" (229 mm)	8.3" (211 mm)	9.2" (234 mm)
10" (254 mm)	9.2" (234 mm)	10.6" (269 mm)
12" (305 mm)	10.6" (269 mm)	12.1" (307 mm)

\* Custom applications available

\*\* Standard heat shrink availability. Saint-Gobain Performance Plastics also specializes in custom applications. Please consult your sales representative for details.



**Limited Warranty:** For a period of 12 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product(s) to be free from defects in manufacturing. Our only obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse, or inability to use this product(s). SAINT-GOBAIN PERFORMANCE PLASTICS DISCLAIMS ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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# Chemfluor® Seamless FEP and PFA Roll Covers

Seamless Design  
in All Sizes



Pulp and Paper  
Textiles  
Converting  
Laminating  
Food Processing  
Other Industries

## Chemfluor® Seamless FEP and PFA Roll Covers

Rollers are an integral element of the manufacturing equipment in paper mills, printing firms and a number of other high-volume industrial environments. Roll covers protect rollers, helping to maximize productivity while reducing maintenance-related downtime.

Saint-Gobain Performance Plastics is the **industry leader in seamless roll covers**. Our products are used in thousands of successful applications around the world.

Saint-Gobain Seamless FEP and PFA Roll Covers are **easy to install**, thanks to strong hoop stress and shrink properties. They deliver **best-in-class corrosion protection, process yield and release properties**, with a non-stick surface treatment that dramatically decreases material build-up and helps reduce maintenance requirements.

Superb quality and excellent performance are hallmarks of all Saint-Gobain Performance Plastics roll covers.

**But it's their seamless design and construction, available even in larger sizes, that really sets them apart from the competition.**

Saint-Gobain **seamless roll covers** are **available in diameters up to 26"**. Larger roll covers from other manufacturers are made from a single piece of material that is formed around the

roller and welded together along a seam, which can fail under heavy usage conditions and interrupts the smooth surface of the cover.

**Saint-Gobain is the only supplier to bring the benefits of seamless roll cover design to manufacturers with larger rollers.** The consistently smooth surface of seamless covers leaves no marks, and seamless construction provides outstanding resistance to stress cracks and bond failure, even after thousands of hours of use in harsh manufacturing environments.



## 4 Reasons to Use Saint-Gobain Roll Covers

### Reason #1 — Custom Applications

Saint-Gobain Performance Plastics will work with you to develop custom roll covers that meet the unique requirements of your particular application.

- Larger and smaller diameters — seamless roll covers up to 26" (660.4 mm); a variety of heat-shrinkable covers with diameters of less than 1" (5.4 mm) nominal.
- Different wall thicknesses — between 0.020" (0.5 mm) and 0.125" (3 mm).
- Specific expansion and shrinkage characteristics.

### Reason #2 — I.D. Etching

Saint-Gobain uses a sodium ammonia etching process on the inside diameter (I.D.) of our roll covers to ensure maximum bonding to metal and rubber rollers. We recommend this procedure for covers intended for rollers larger than 12" (305 mm) in diameter, driven rollers, pressure rollers of any diameter operating in wet environments, rollers traveling over 2000 FPM, or when temperatures exceed 150°F (66°C).

### Reason #3 — Unmatched Technical Support

Saint-Gobain Performance Plastics operates a research and development center in Northboro, Massachusetts. In addition to their ongoing efforts to develop new materials and new applications for existing materials, our in-house application engineering and installation staff is available for consultations and on-site service. Factory trained sales representatives and distributors are also available locally for immediate support.

### Reason #4 — Extensive Inventory of Standard Sizes

Although many Saint-Gobain roll covers are produced to meet the needs of individual customers, we also maintain an extensive inventory of standard sizes, enabling us to fulfill orders quickly — a nice thing to know when problems occur and you need new roll covers to get your equipment up and running again.

## Applications

### Pulp and Paper

Wet end paper rolls, fly, carrying, lead-in/lead-out, bottom press, calendar, pressure/nip rolls, bowed rolls, grooved rolls.

### Textiles

Straight and bowed for coating, mercerizing, spinning, dyeing, printing, laminating, finishing, sizing, web spreading, guiding and others.

### Converting

Recondition existing rollers with roll covers in lieu of purchasing new rollers or sending rollers out for costly re-work.

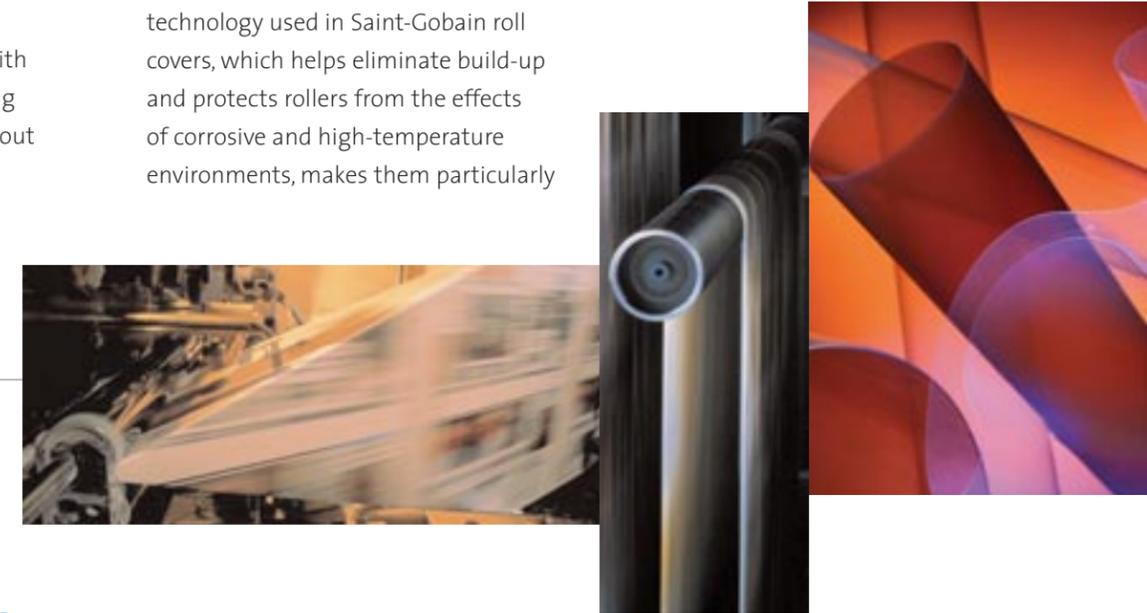
### Laminating

Eliminate sticky build-up and pickling, reduce down time for roll cleaning, increase line speeds, extend roller life.

### Food Processing and Other Industries

Food processing, packaging, printing, laminating, photographic, and many other applications where corrosion, build-up, or sticking of materials is a problem. The seamless anti-stick technology used in Saint-Gobain roll covers, which helps eliminate build-up and protects rollers from the effects of corrosive and high-temperature environments, makes them particularly

well-suited to such applications. Saint-Gobain Seamless FEP and PFA Roll Covers are made from FDA-approved materials.



## Features and Benefits

### feature

Seamless technology

Non-stick surface

Heat resistance

Chemical resistance

Chemically inert

ISO 9001 certification

Ease of installation

Increased production

Protects rollers

Excellent flex/crack resistance

I.D. etching

### benefit

Leaves no marks; smooth, consistent surface; available in larger sizes

Eliminates material sticking and build-up, reducing maintenance and downtime

Non-flammable, operates well in high-temperature environments

FEP and PFA are impervious to virtually all chemicals

Safe for use in food processing applications (fabricated of FDA-approved material)

Your assurance of the highest quality standards

Quick and simple installation during routine maintenance; can be installed easily by plant maintenance personnel

Quick release allows for faster roll speed

Longer life for roller surface; protects from pitting, reducing need to grind; allows re-use of old rollers

Superior flexibility for resilient surfaces, continuous flexing and bowed applications

Available on request for enhanced bonding to metal and rubber rollers