

Fluid Transfer Tubing



TYGON[®]
Excellence By Design

TYGON [™]
Safe Smart Sustainable

VERSILON[™]
Fluid Performance

SELECTION GUIDE


SAINT-GOBAIN

Products distributed at rs-online.com



MISSION

To **co-develop** fluid management and sealing solutions with customers using a **multi-materials** toolset.

Our **flexible, global** operating model will react quickly to customer needs.

We will provide **peace-of-mind** to our customers, inspiring our employees and building trust with our customers.

Our employees are **experts** in high-performance **fluid transfer applications** and use this expertise to provide **innovative solutions**.

Saint-Gobain's Process Systems Fluid Transfer business helps customers achieve safety, performance and brand assurance through a broad range of capabilities that rely on superior engineering and customer support.

Our products include the food & beverage dispensing, cleaning chemical dispensing, raw milk collection and small fuel engine industries. We are helping customers in all of these industries achieve goals in innovation, efficiency, sustainability and product integrity through customized solutions such as flexible tubing, hoses.

www.processsystems.saint-gobain.com



TYGON[®]
Excellence By Design

Precision-designed tubing for peak performance and regulatory compliance, across a range of specialized fluid transfer applications.

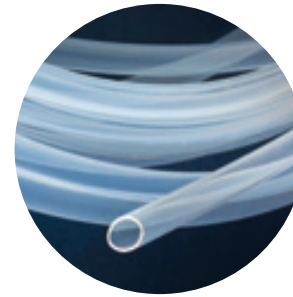
TYGON S³
Safe Smart Sustainable

Phthalate-free, bio-based tubing product line for the food and beverage market.

VERSILON[™]
Fluid Performance

Premium quality tubing, hoses and fittings fulfilling a range of demanding certification, performance and safety standards.

TUBING SELECTION GUIDE



The information presented in this brochure is intended to serve as a guide for selection of flexible tubing.

In choosing the right tubing for your application there are several factors to consider. Listed to the right are questions which will help direct you in the selection of the proper tubing for your specific application. It is required to test tubing under the actual service conditions prior to specifying a particular tubing formulation.

Assistance in tubing selection is available from RS our worldwide network of authorized tubing distributor. For more details get in contact with a technical person from RS.

- 1 What fluid(s) is to be transported?
- 2 What range of temperatures will the tubing be subjected to?
- 3 What is the maximum line pressure or vacuum?
- 4 What degree of tubing flexibility is desired?
- 5 What are the conditions of the ambient environment?
- 6 Will the tubing be used in a peristaltic pump?
- 7 Is clarity of tubing important?
- 8 What compliance documentation is needed? (EU Regulation 1935/2004 ,FDA)

PROCESS SYSTEMS


SAINT-GOBAIN

FOOD AND BEVERAGE MARKET

Applications for food and beverage tubing

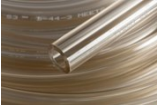
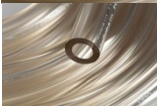



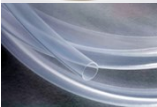


Our tubing are used for different applications in food and beverage transfer. You can find Saint-Gobain tubing in :

- Fountain drinks machines
- Vending machines
- General dispensing machines

To dispense soft *drinks, coffee, tea, smoothies, beer, yoghurt, cheese or ketchup* for example

For your needs, we also have tubing used for collecting milk on the dairy farm.



	Tubing	Clarity	Flexibility	Peristaltic Pump Applications	Chemical Resistance					Certifications
					Aqueous Food	Dairy Food	Low Alcohol Food (<20%)	High Alcohol Food (> 20%)	Fatty Food	
	TYGON® B-44-3	Transparent	High	—	+++	—	+++	—	—	FDA EU Regulation 1935/2004 and 10/2011 (for plastics)
	TYGON® B-44-4X	Transparent	High	—	+++	+++	+++	—	—	
	TYGON® 2375	Transparent	Low	—	+++	+++	+++	+++	—	
	TYGON® XL-60	Translucent	High	+++	+++	+++	+++	+++	—	
	VERSILON™ SPX-60 FB	Translucent	High	++	+++	+++	+++	+++	—	
	VERSILON™ FEP-F	Transparent	Low	—	+++	+++	+++	+++	—	
	VERSILON™ PFA-F	Transparent	Low	—	+++	+++	+++	+++	+++	
	VERSILON™ PTFE-F	Translucent	Low	—	+++	+++	+++	+++	+++	

+++ : Excellent

++ : Good

+ : Fair

— : Not recommended

Tubing	RS Part No.	Inner Diameter	Outer Diameter	Lenght
TYGON S3™ B-44-3	9124742	1.6 mm	3.2 mm	15 m
	9124751	2.4 mm	4 mm	
	9124754	3.2 mm	4.8 mm	
	9124758	3.2 mm	6.4 mm	
	9124760	6.4 mm	9.6 mm	
	9124764	7.9 mm	11.1 mm	
	9124767	4.8 mm	7.9 mm	
	9124773	12.7 mm	19.1 mm	
	9124776	19 mm	25.4 mm	
	TygonS3™ B-44-4X	3400728	3.2 mm	
3400734		3.2 mm	6.4 mm	
3400740		4.8 mm	8 mm	
3400756		6.4 mm	9.6 mm	
3400762		8 mm	11.2 mm	
3400784		9.6 mm	12.7 mm	
3400790		12.7 mm	19.1 mm	
Tygon® 2375		7621241	1.6 mm	3,2mm
	7621250	1.6 mm	4,8mm	
	7621253	2.4 mm	4mm	
	7621257	3.2 mm	6,4mm	
	7621263	6.4 mm	9,6mm	
	7621266	4 mm	5,6mm	
	7621269	4.8 mm	8mm	
	7621272	8 mm	11,2mm	
	7621275	9.5 mm	12,7mm	
	7621279	9.5 mm	15,9mm	
	7621281	15.9 mm	22,3mm	
	7621288	12.7 mm	19,1mm	
7621294	25.4 mm	35mm	7.5 m	

Tubing	RS Part No.	Inner Diameter	Outer Diameter	Lenght
Tygon® XL-60	7621310	1.6 mm	4.8 mm	15 m
	7621314	3.2 mm	6.4 mm	
	7621320	8 mm	11.2 mm	
	7621323	4.8 mm	8 mm	
	7621326	6.4 mm	9.6 mm	
	7621332	12.7 mm	19.1 mm	
	7621336	15.9 mm	22.3 mm	
	7621345	19 mm	25.4 mm	
	Versilon™ SPX-60 FB	1639356	2 mm	
1639357		3 mm	5 mm	
1639358		4 mm	6 mm	
1639359		5 mm	7 mm	25 m
1639360		5 mm	8 mm	
1639361		6 mm	10 mm	
1639362		8 mm	12 mm	
1639363		10 mm	14 mm	
1639364		12 mm	17 mm	



Tubing	RS Part No.	Inner Diameter	Outer Diameter	Lenght
Versilon™ FEP-F	1581923	2,5 mm	4 mm	50 m
	1581924	4 mm	6 mm	
	1581925	6 mm	8 mm	
	1581927	6 mm	9 mm	
	1581928	8 mm	10 mm	
	1581929	9 mm	12 mm	
	1581930	10 mm	12 mm	
Versilon™ PFA-F	1581908	2,5 mm	4 mm	50m
	1581909	4 mm	6 mm	
	1581911	6 mm	8 mm	
	1581912	6 mm	9 mm	
	1581913	8 mm	10 mm	
	1581914	9 mm	12 mm	
	1581915	10 mm	12 mm	
Versilon™ PTFE-F	1581938	2,5 mm	4 mm	50m
	1581939	4 mm	6 mm	
	1581940	6 mm	8 mm	
	1581941	6 mm	9 mm	
	1581942	8 mm	10 mm	
	1581943	9 mm	12 mm	
	1581944	10 mm	12 mm	






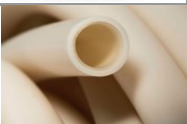

INDUSTRIAL CLEANING MARKET

Applications for cleaning chemical dispensing

You can find tubing used for **transferring** sanitizing and cleaning chemicals or tubing used for peristaltic pumps **to dispense** sanitizing and cleaning chemicals. The applications are for different markets like :

- Hospitality industry such as hotels, resorts, restaurants, bars, cafeterias
- Healthcare industry such as hospitals, nursing homes, adult day care center
- Education institutes such as universities, schools, day care centers



	Tubing	Clarity	Flexibility	Peristaltic Pump Applications	Acids			Bases		
					Conc.	Medium	Weak	Conc.	Medium	Weak
	TYGON® E-3603	Transparent	High	—	+	+++	+++	+	+++	+++
	TYGON® A-60-F	Beige	High	+++	—	+++	+++	+++	+++	+++
	TYGON® A-60-G	Black	High	+++	—	+++	+++	+++	+++	+++
	TYGON® Chemical	Beige	Medium	+++	+	+++	+++	+++	+++	+++
	TYGON® 2375	Transparent	Low	—	+	+++	+++	+++	+++	+++

+++ : Excellent

++ : Good

+ : Fair

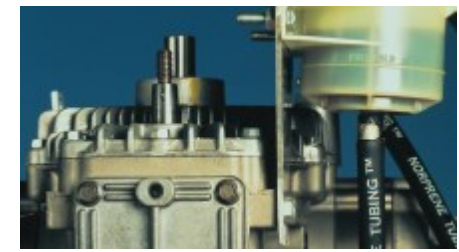
— : Not recommended

INDUSTRIAL CLEANING MARKET





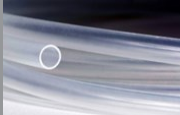
Applications for cleaning chemical dispensing

You can find tubing used for **transferring** sanitizing and cleaning chemicals or tubing used for peristaltic pumps **to dispense** sanitizing and cleaning chemicals. The applications are for different market like :

- Hospitality industry such as hotels, resorts, restaurants, bars, cafeterias
- Healthcare industry such as hospitals, nursing homes, adult day care center
- Education institutes such as universities, schools, day care centers



VERSILON™
Fluid Performance

	Tubing	Clarity	Flexibility	Peristaltic Pump Applications	Acids			Bases		
					Conc.	Medium	Weak	Conc.	Medium	Weak
	Versilic®	Translucent	High	—	—	—	—	—	+	+
	Iso-Versinic®	Black	High	++	+	+++	+++	+++	+++	+++
	VERSILON™ PTFE	Translucent	Low	—	+++	+++	+++	+++	+++	+++
	VERSILON™ FEP	Transparent	Low	—	+++	+++	+++	+++	+++	+++
	VERSILON™ PFA	Transparent	Low	—	+++	+++	+++	+++	+++	+++

+++ : Excellent

++ : Good

+ : Fair

— : Not recommended

Tubing	RS Part No.	Inner Diameter	Outer Diameter	Lenght
TYGON® E-3603	3139454	0.8 mm	2.4 mm	15 m
	3139476	1.6 mm	4.8 mm	
	3139482	2.4 mm	4 mm	
	3139498	3.2 mm	4.8 mm	
	3139505	3.2 mm	6.4 mm	
	3139511	4.8 mm	8 mm	
	3139533	6.4 mm	9..6 mm	
	9124736	6.4 mm	16 mm	
	3139549	7.9 mm	11.1 mm	
	3139555	9.5 mm	12.7 mm	
	3139561	9.5 mm	15.9 mm	
	9124732	4.8 mm	14.4 mm	
	9124745	9.5 mm	22.3 mm	
	9124748	12.7 mm	28.7 mm	
	4189860	4.8 mm	6.4 mm	
	4189876	12.7 mm	19.1 mm	
	4189882	4 mm	6 mm	
	4189898	6 mm	9 mm	
	4189911	7 mm	10 mm	
	4194373	1.6 mm	3.2 mm	
TYGON® A-60-F	3139690	3.2 mm	6.4 mm	15 m
	3139707	4.8 mm	8 mm	
	3139713	6.4 mm	9.6 mm	
	3139729	8 mm	11.1 mm	
	3139735	9.5 mm	12.7 mm	
TYGON® A-60-G	3139763	3.2 mm	6.4 mm	15 m
	3139779	4.8 mm	8 mm	
	3139785	6.4 mm	9.6 mm	
	3139791	8 mm	11.2 mm	
	3139814	9.5 mm	12.7 mm	
	3139820	9.5 mm	15.9 mm	
	3139836	12.7 mm	19.1 mm	
	3139842	15.9 mm	22.3 mm	
	4189933	4.8 mm	9.6 mm	
4189949	19 mm	25.4 mm		

Tubing	RS Part No.	Inner Diameter	Outer Diameter	Lenght	
TYGON® Chemical	7621342	4.8 mm	8 mm	15 m	
	7621348	3.2 mm	6.4 mm		
	7621351	6.4 mm	9.6 mm		
	7621354	9.6 mm	12.7 mm		
	7621358	12.7 mm	19.1 mm		
Tygon® 2375	7621241	1.6 mm	3,2mm	15 m	
	7621250	1.6 mm	4,8mm		
	7621253	2.4 mm	4mm		
	7621257	3.2 mm	6,4mm		
	7621263	6.4 mm	9,6mm		
	7621266	4 mm	5,6mm		
	7621269	4.8 mm	8mm		
	7621272	8 mm	11,2mm		
	7621275	9.5 mm	12,7mm		
	7621279	9.5 mm	15,9mm		
	7621281	15.9 mm	22,3mm		
	7621288	12.7 mm	19,1mm		
	7621294	25.4 mm	35mm		7.5 m
	Versilic®	4189999	2 mm		4 mm
4190012		3 mm	5 mm		
4190034		5 mm	7 mm	25 m	
4190040		5 mm	8 mm		
4190056		6 mm	10 mm		
4190062		8 mm	12 mm		
4190078		10 mm	14 mm		
4190084		12 mm	17 mm		
Iso-Versinic®		4924578	4 mm	6 mm	50 m
		7638182	4 mm	6 mm	
	7638185	2 mm	4 mm	50 m	
	7638188	3 mm	5 mm		
	7638191	4 mm	8 mm	25 m	
	7638194	5 mm	8 mm		
	7638198	6 mm	9 mm		
	7638205	8 mm	12 mm		
7638208	6 mm	10 mm			

Tubing	RS Part No.	Inner Diameter	Outer Diameter	Lenght
Versilon™ PTFE	1581931	2,5 mm	4 mm	50 m
	1581932	4 mm	6 mm	
	1581933	6 mm	8 mm	
	1581934	6 mm	9 mm	
	1581935	8 mm	10 mm	
	1581936	9 mm	12 mm	
	1581937	10 mm	12 mm	
Versilon™ FEP	1581916	2,5 mm	4 mm	50m
	1581917	4 mm	6 mm	
	1581918	6 mm	8 mm	
	1581919	6 mm	9 mm	
	1581920	8 mm	10 mm	
	1581921	9 mm	12 mm	
	1581922	10 mm	12 mm	
Versilon™ PFA	1581900	2,5 mm	4 mm	50m
	1581901	4 mm	6 mm	
	1581902	6 mm	8 mm	
	1581903	6 mm	9 mm	
	1581905	8 mm	10 mm	
	1581906	9 mm	12 mm	
	1581907	10 mm	12 mm	



SMALL ENGINE FLUID TRANSFER MARKET



Applications for fuel dispensing tubing

You can find tubing used for transferring specific liquid in small engines. You can find application such as :

- From Tank to Carburetor to Engine in the Fuel System
- Fuel Line
- Returns Line
- Vent Line

Tubing	RS Part No.	Inner Diameter	Outer Diameter
TYGON® F-4040-A	3139577	3.2 mm	6.4 mm
	3139583	4.8 mm	8 mm
	3139599	6.4 mm	9.6 mm
	3139606	8 mm	11.1 mm
	3139612	9.5 mm	12.7 mm
TYGON® LP-1200	9124714	2.03 mm	3.6 mm
	9124720	4.76 mm	8 mm
	9124723	2.38 mm	4.8 mm
	9124726	3.17 mm	6.4 mm
	9124739	6.35 mm	9.6 mm



	Tubing	Clarity	Flexibility	Peristaltic Pump Applications	Ethanol compatibility	Certification
	TYGON® F-4040-A	Yellow	High	++	No submersible Compatible with up to 10% ethanol	/
	TYGON® LP-1200	Translucent	Medium	No	Submersible Compatible with 100% ethanol fuel transfer	

+++ : Excellent

++ : Good

+ : Fair

— : Not recommended

Performance Plastics

www.processsystems.saint-gobain.com



Performance Plastics
Process Systems
Food & Beverage



Performance Plastics
Process Systems
Industrial



WARNING: The content of Saint-Gobain tubing materials is not certified by the FDA for implant devices and is neither designed nor intended to be used in medical applications involving permanent implantation in the human body or permanent contact with body fluids or tissues. Failure to comply with this warning may lead to serious bodily injury or death.

IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain materials for all intended uses. Laboratory, field or clinical tests must be conducted in accordance with applicable requirements in order to determine the safety and effectiveness for use of materials in any particular application. If intended for medical use, it is the user's responsibility to ensure that the materials to be used comply with all applicable medical regulatory requirements.

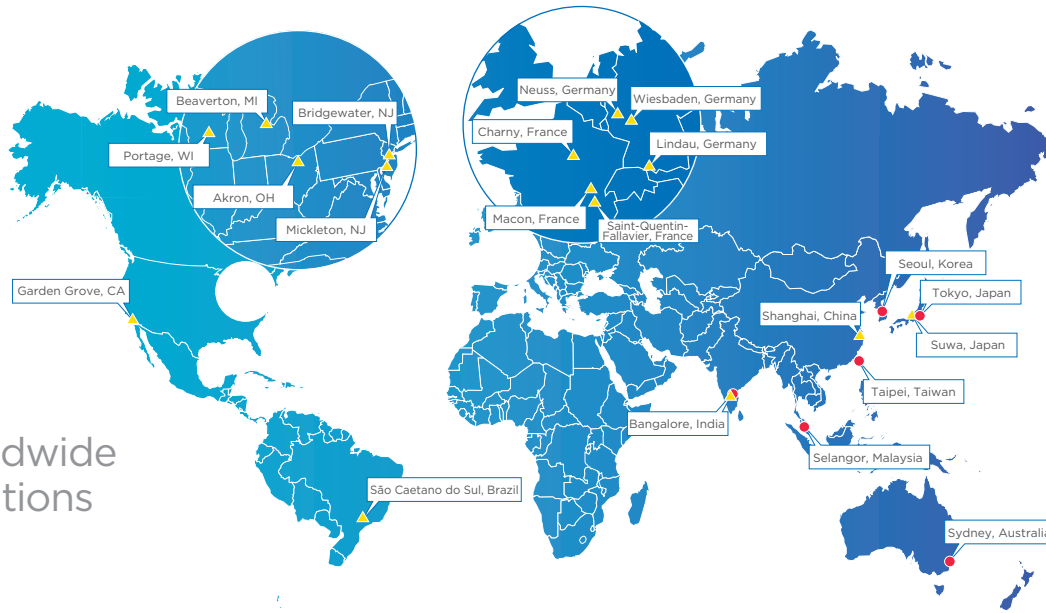
Limitation of Liability

Except for products for which Saint-Gobain (SGPPL) has established a specific written warranty, the products described herein are sold by SGPPL without any guarantee and/or warranty, oral or written. User assumes all risk, if any, including the risk of injury, loss or damage, whether direct, consequential or incidental, arising out of the use, misuse or inability to use these products.

SAINT-GOBAIN DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

NOTE: Saint-Gobain Corporation does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product or of any final product into which the product may be incorporated by the purchaser and/or user.

Worldwide Locations



Manufacturing and Customer Service Locations

United States
Garden Grove, CA
Beaverton, MI
Bridgewater, NJ
Mickleton, NJ
Akron, OH
Portage, WI

South America
São Caetano do Sul, Brazil

Europe

Charny, France
Macon, France
Saint-Quentin-Fallavier, France
Lindau, Germany
Neuss, Germany
Wiesbaden, Germany

Asia

Shanghai, China
Bangalore, India
Suwa, Japan

Additional Customer Service Locations

Asia

Bangalore, India
Seoul, Korea
Tokyo, Japan
Selangor, Malaysia
Taipei, Taiwan

Australia

Sydney, Australia

Engineering Locations



R&D Locations

United States
Northborough, MA

Europe

Aubervilliers, France

Asia

Bangalore, India (coming soon)
Shanghai, China

Application Engineering

North America

Akron, OH - 2
Mickleton, NJ - 1
Garden Grove, CA - 4
Beaverton, MI - 5
Portage, WI - 1

South America

São Caetano do Sul, Brazil - 1

Europe

Macon, France - 1
Saint-Quentin-Fallavier, France - 8
Lindau, Germany - 10
Neuss, Germany - 1
Wiesbaden, Germany - 1

Asia

Shanghai, China - 2
Suwa, Japan - 1
Seoul, Korea - 1
Taipei, Taiwan - 1