

Fluoropolymer Hose and Fitting Selection Guide



SAINT-GOBAIN INDUSTRIAL & CONSUMER SOLUTIONS



Making a material impact around the world.



Saint-Gobain Versilon[®] **Fluoropolymer Hose and Fittings**

p. 2

р. З

p. 3

p. 4

Table of Contents

Versilon[®] Fluoropolymer Hose Styles

Rubber Covered Smooth ID Transfer Hose Stainless Steel Smooth ID Braided Hose Convoluted ID Transfer Hose - Open Pitch Convoluted ID Transfer Hose - Low Profile

Versilon® Fitting End Connections

Sanitary	р. 5
Flanged Connections	р. 5
Male Cam & Groove	р. 6
Female Cam-Lock (Cam & Groove)	р. 6
Compression, O-ring and Vacuum	р. 6
NPT	p. 7
Unions, Female JIC	p. 7
Versilon [®] Adapters	p. 7

+350°F

Versilon[®] Fluoropolymer Hose Styles

Rubber Covered Smooth ID Transfer Hose

TLCT WTLCT Smooth I.D. FEP fluoropolymer lined EPDM rubber hose (green) : 1/2" to 4" I.D. Size range Size range : -40°F to Temperature rated +350°F End connections : Permanent crimp style; Flare-Thru Consult factory for available sizes/styles TLCTCO WTLCTPFA Smooth I.D. FEP lined EPDM Smooth ID, ultra pure rubber hose with "Convoluted Outer" for improved flexibility : 3/4" to 2" I.D. Size range : -40°F to Temperature rated +350°F End connections : Permanent crimp style; Flare-Thru Consult factory for available sizes/styles

Smooth I.D. FEP fluoropolymer lined EPDM rubber hose (white)

: 1/2" to 4" I.D. : -40°F to Temperature rated

End connections

unpigmented PFA lined white EPDM rubber covered transfer hose

Size range	: 3/
Temperature rated	: -4
	+3
End connections	: Pe
	FI
	Сс

/4" to 2" I.D. 40°F to 350°F Permanent crimp style; lare-Thru Consult factory for available sizes/styles

: Permanent crimp style; Flare-Thru Consult factory for available

sizes/styles

Size range

- - : -100°F to

End connections

TBOB

Anti-static (black) version of open pitch PTFE helical convoluted I.D. hose Shares sizes, temperature rating and end connections of TWOB



Stainless Steel Smooth ID Braided Hose

TS

True bore smooth I.D. PTFE tube. 304 stainless steel braid reinforced hose Size range : 1/8" to 1" I.D. : -100°F to Temperature rated +450°F continuous; +500°F intermittent End connections : Permanent crimp style TD 1-1/2" version of TS with two 304 stainless steel reinforcing braids : -100°F to +450°F continuous; Temperature rated +500°F intermittent

- : Permanent crimp style
- TSS

End connections

Platinum cured, extruded silicone covered 304 stainless steel reinforced PTFE smooth tube hose

Size range Temperature rated

: 1/4" to 1" I.D. : -100°F to +450°F continuous; +500°F intermittent

End connections

TWOB

: Permanent crimp style

Convoluted ID Transfer Hoses - Open Pitch

Open pitch (white) PTFE helical convoluted I.D. hose: 316 stainless steel braid reinforcement

: 1/2" to 4" I.D. Temperature rated

+450°F

: Flare-Thru: flanged, female cam-lock and sanitary; Permanent crimp style

TB

Anti-static (black) true bore smooth I.D. PTFE tube 304 stainless steel braid reinforced hose



End connections

Temperature rated

Size range

TDB

1/2" version of TB; two 304 stainless steel reinforcing braids

: 1/4" to 1" I.D.

: Permanent crimp style

: 100°E to

+450°F

Temperature rated	: -100°F to +450°F continuous;
	+500°F intermittent
End connections	: Permanent crimp style

TH

Anti-static (black) PTFE tube, 304 high density stainless steel braid reinforcement

Pressure rated for 5000 psi all sizes

Size range : 1/4" to 1" I.D. : -65°F to Temperature rated +400°F continuous; End connections

: Permanent crimp style

TWOBHV

Vacuum rated 316 stainless steel braid reinforced version of TWOB Includes optional stainless steel support wire for improved vacuum and kink resistance



Size range

Temperature rated End connections

- : 2" to 4" I.D.
- : -100°F to +450°F
- : Flare-Thru; flanged, female camlock and sanitary; crimp style

TBOBHV

Anti-static (black) version of TWOBHV; shares sizes, temperature rating and end connections (not shown)

TBOY

Anti-static (black) version of TWOY Size range : 1/2" to 4" I.D.

: -40°F to

+250°F

+250°F

: Flare-Thru;

flanged, female

sanitary; Permanent crimp style

: Flare-Thru; flanged, female cam-lock

and sanitary; Permanent crimp style

cam-lock and

Temperature rated

End connections

TWOY

Open pitch (white) PTFE helical convoluted I.D. hose; U.V. stabilized large diameter (denier) polypropylene braid reinforcement

Size range : 1/2" to 4" I.D. : -40°F to

Temperature rated

End connections

TWOP/TBOP

Unbraided (white, TWOP) and anti-static (black, TBOP) PTFE helical convoluted I.D. hose

Size range Temperature rated

End connections

End connections

- : -100°F to +450°F
- : Permanent crimp style; Flare-Thru; flanged, female cam-lock and sanitary; Also available with "cuffed" ends to slip over pipe or tube O.D. connections

TBOK

Size range

TWOK

Temperature rated

End connections

reinforcement

Temperature rated

End connections

Size range

Anti-static (black) open pitch PTFE

Open pitch PTFE helical convoluted

I.D. hose; PVDF (Kynar) braid

: 3/4" to 3" I.D.

: -40°F to

+275°F

: Flare-Thru:

: 3/4" to 3" I.D.

: -40°F to

+275°F

: Flare-Thru;

flanged, female cam-lock and

sanitary; Permanent crimp style

helical convoluted I.D. hose

Convoluted Transfer Hose - Low Profile WCS

+400°F

Permanent crimp style

: 1/4" to 4" I.D

WCP White PTFE fluoropolymer low White PTFE fluoropolymer low profile helical convoluted I.D. hose; profile helical convoluted I.D. hose. 304 high tensile strength stainless U.V. stabilized polypropylene braid steel braid reinforcement reinforcement : 3/8" to 2" I.D. Size range : 1/2" to 1" I.D. Size range : -65°F to +400°F : -40°F to +250°F Temperature rated **Temperature rated** End connections Permanent crimp End connections Permanent crimp style style WCSS: BCP: Platinum cured, extruded silicone Anti-static (black) PTFE low profile covered stainless steel reinforced version of WCP, shares size range (white) PTFE fluoropolymer low and end connections profile convoluted I.D. hose : 1/2" to 1" I.D. Size range : 3/8" to 2" I.D. Size range : -40°F to Temperature rated : -65°F to Temperature rated +250°F +400°F End connections : Permanent crimp style **End connections** : Permanent crimp style BCS Chlorine Hose Anti-static (black) PTFE low profile PTFE convoluted inner tube version of WCS, shares size range with PVDF braid manufactured in and end connections accordance with Chlorine Institute Pamphlet 6 specifications Size range : 3/8" to 2" I.D. : -65°F to Temperature rated

End connections

Versilon® Fitting End Connections

Sanitary

Sanitary clamp style, 316L stainless steel Style 10

316L stainless steel Style 10U Style 10UU

Sanitary clamp style 90° elbow, 316L stainless steel Style 10L

Sanitary "mini", 316L stainless steel Style 11

Sanitary & hose

Sanitary 90° elbow "mini". 316L stainless steel

Mini sanitary & hose barb same size Note: 45° elbows also available full size (style 10L45) & "mini" size (style 11L45)

Sanitary "maxi" size for Sani-Tech[®] Rigid connections. 316L stainless steel

Style 25

stainless steel Style 50

Female I-line, 316L stainless steel Style 51

316L Flange retainer with: 304 or 316L lap joint flanges Style 12S6 - 316L flange Style 12S4 - 304 flange

Epoxy coated carbon steel lap joint flange Style 12C epoxy carbon steel flange



PFA encapsulated flange retainer: Style 12TC epoxy coated carbon steel



flanged, female cam-lock and

sanitary; Permanent crimp style

Size range : 1/2" to 1-1/2" I.D. Temperature rated : -40°F to +120°F

: Permanent crimp style (high nickel & PVDF)

barb same size Style 11L

Bevel seat. male threads, 316L stainless steel Style 40





Sanitary "jump" styles clamp style,

- 1 step up
- 2 steps up







Sanitary "mini" jump size, 316L stainless steel Style 11U

Bevel seat/nut, 316L stainless steel insert 304 stainless steel nut Style 20

Butt Weld. sanitary tube size 316L stainless steel Style 41



Fittings made from other materials such as high nickel allovs and PVDF are available. Contact us for more information.

Flanged Connections Class 150 Lap Joint Flanges Shown • Class 300 Lap Joint Flanges Available





"Flare-Thru" flange retainer: fluoropolymer lined Style 12FTC epoxy coated carbon steel Style 12FT6 -316L flange Style 12FT4 - 304 flange



C/F for hose type with Flare-Thru flange option Note: Class 300# flanged assemblies must be cross checked for hose/fitting pressure rating

Male Cam & Groove

316L stainless steel male cam & aroove Style 17 - Male & hose barb same size

Style 17U - Male is one size larger than Hose Barb

Female Cam-Lock (Cam & Groove)

Female cam-lock, swivel style nonlocking arms 316L insert 316 stainless steel body Style 16

Female cam-lock. swivel style locking arms PFA encapsulated insert 316 stainless steel bodv Style 16TLK

Compression connector 316L stainless steel Style 31 1/4" to 1" Sizes hose barb & connector same size Step-up & step-down sizes available; consult factory O-ring style 316L stainless

steel 1/4"-1/2" sizes Style 33

Female camlock. swivel style locking and nonlocking arms "Flare-Thru" option Style 16FTLK locking arms **Compression, O-Ring and Vacuum** Compression connector

Chemfluor[®] PFA

Style 17T - Male

Female cam-lock,

swivel style non-

locking arms PFA

encapsulated

insert with 316

stainless steel

body

Style 16T

Encapsulated

male cam &

& hose barb

same size

groove

w/nut & ferrules 316L stainless steel 1/4" to 1" sizes

Style 31FN Hose barb &

step-down sizes available; consult factory Vacuum fitting,female

316L stainless steel 1/4" & 1/2" sizes Style 34



1/4" - 1" Sizes available preswaged from factory Style 32FN

Style 16FTS6 - non-locking arms







Fluoropolymer encapsulated male cam & groove fittings available on selected hose styles & sizes

Consult factory for availability

Female cam-

locking arms

stainless steel

Style 16LK

body



Fluoropolymer Flare-Thru female cam & groove fittings available on selected hose styles & sizes

Consult factory for availability

tube adapter 316L stainless steel 1/4" to 1" sizes Style 32 Hose barb & tube same size step-up & step-down sizes available; consult factory

Compression

Vacuum fitting, male 316L stainless steel 1/4" & 1/2" sizes Style 35

NPT

size

Male NPT: 316 L stainless steel hex stvle Style 03 - MNPT & hose barb same stainless steel Style O3U - Step-up fittings have "wrench flats" Style 04 - Male NPT, plain

Female NPT Style 06 - Hex style; 316L stainless steel Hose barb & female NPT same size Style 05 - Female

Unions/Female JIC

NPT, plain

Male union 316L

stainless steel

pipe adapter

same size

JIC x male NPT

Style 08 - Hose

and MNPT barb

Style O8U - Step-up

Style O8D - Step-down



Female union 316L stainless steel JIC x female pipe adapter Style 07 - Same size FNPT pipe x hose barb Style 07U - Step-up Style 07D - Step-down

Butt Weld, 316L stainless steel "pipe size" Style 01 Pipe size & hose barb same size, length & pipe schedule can be



Female JIC swivel 316L stainless steel insert, 304 stainless steel swivel nut Style 02 - JIC & hose barb same size

custom manufactured; consult factory

Versilon[®] Adapters

PFA encapsulated 316 male cam & groove x 150# Lap joint (swivel) flange adapter Style 18T6 - 316L stainless steel flange



Style 18T4 - 304 stainless steel flange

Male NPT jump sizes hex style; 316L

Style O3D - Step-down 2-1/2" & larger













Consult factory for 300# flange

PFA encapsulated 316 stainless steel "spool" adapter for connecting two fluoropolymerlined female cam & groove fittings Style 19T





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

Fluoropolymer Hose and Fitting Selection Guide

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 Industrial & Consumer Solutions

210 Harmony Road Mickleton, NJ 08056

www.ics.saint-gobain.com

SAINT-GOBAIN INDUSTRIAL & CONSUMER SOLUTIONS









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

NOTE: Saint-Gobain Performance Plastics 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.

Versilon[®] is a registered trademark of Saint-Gobain Performance Plastics.

_____SAINT-GOBAIN

©2025 Saint-Gobain Performance Plastics