

## **FURON**<sup>®</sup> **FEP TUBING**

HIGH-PERFORMANCE  
TRANSPARENT  
FLUOROPOLYMER  
TUBING

Saint-Gobain's Furon brand is well known and highly regarded in the Semiconductor industry. Furon FEP tubing serves multiple applications within a Fab and provides high-performance with excellent physical properties and chemical resistance.

### **TYPICAL MARKETS AND APPLICATIONS**

Semiconductor and Electronics

- Clean, dry air line applications
- Chemical drain line applications
- Heat Exchangers

### **FEATURES AND BENEFITS**

- Laser Etched for in Fab Traceability (where diameter and wall thickness allow)
- Excellent physical properties
- Exceptional electrical properties
- Outstanding chemical resistance
- Transparent tube
- UV resistance
- Wide temperature range, up to +402°F (+206°C)\*

\* See Graphs on page 4

## NOMENCLATURE

Furon FEP Tubing part numbers are created depending upon various properties of the tube. It is based on selected options available for each property.

Example Part Number

**FT15ODFRFD-001**

Product	Size Unit	Size Diameter		ID/OD Definition	Wall Thickness	Material	Packaging	Length Unit	Length	Iteration # (Non-Standard/Specialty Item)
		inch	mm							
Furon Tubing = FT	Imperial = I Metric = M	1/16 = 1 1/8 = 2 3/16 = 3 1/4 = 4 5/16 = 5 3/8 = 6 7/16 = 7 1/2 = 8 9/16 = 9 5/8 = 10 11/16 = 11 3/4 = 12 13/16 = 13 7/8 = 14 15/16 = 15 1 = 16 1-1/4 = 20 1-1/2 = 24 2 = 32	3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 10 = 10 11 = 11 12 = 12	ID = I OD = O	D = 0.031 E = 0.047 F = 0.062 G = 0.075  M = 0.5 mm N = 1.0 mm O = 1.5 mm P = 2.0 mm	FEP = F	Coil = C Reel = R Undefined = X Straight Length = S	Feet = F Meters = M	15 = A 30 = B 50 = C 100 = D 200 = E 250 = F 300 = G 400 = H 500 = I 1000 = J	This number will only appear on a part number if it is any of the following  1. Special material 2. Specific to a customer 3. Customer configuration  If there is no number or dash in this position, the tubing is a standard configuration

**FT15ODFRFD** = Standard FEP Tubing Part Number

**FT15ODFRFD-001** = Non-Standard, Specialty, Customized FEP Tubing Part Number

## SPECIFICATIONS - STANDARD IMPERIAL SIZES

Part Number	Inner Diameter	Outer Diameter*	Tolerances O.D.	Wall Thickness	Tolerances Wall	Min. Bend Radius	Calculated Burst Pressure at 73°F	Working Pressure at 73°F	Packaging Unit*
	in	in	in	in	in	in	psi	psi	ft
FTI2ODFRFD	1/16	1/8	0.004	1/32	0.003	1/2	784	196	100
FTI3ODFRFD	1/8	3/16	0.005			1/16	0.005	1-7/64	
FTI4OFFRFD		5/32		1/4	3/64	0.004	1-21/64	580	
FTI4OEFRFD	3/16	5/16	1/32	0.003	1	368	92		
FTI5OFFRFD			1/16	0.005	1-1/2	620	155		
FTI5ODFRFD	1/4	3/8	1/32	0.003	1-3/4	292	73		
FTI6OFFRFD			1/16	0.005	1	508	127		
FTI6ODFRFD	5/16	3/8	1/32	0.003	2-1/2	756	189		
FTI8OFFRFD	3/8	1/2	0.006	1/16	0.005	3-31/32	368	92	
FTI8ODFRFD	7/16		1/32	0.003	4	188	47		
FTI10OFFRFD	1/2	5/8	0.007	1/16	0.005	3	288	72	
FTI12OFFRFD	5/8	3/4				8-59/64	264	66	
FTI16OFFRFD	7/8	1	0.009		0.006	15-7/8	188	47	

\*Part numbers listed are based on OD, and length of 100 feet on a reel.  
 Custom packaging units and other sizes available on request, [Contact Us](#) for additional information.  
 Additional diameter, sizes and tolerances available upon request.

## SPECIFICATIONS - STANDARD METRIC SIZES

Part Number	Inner Diameter*	Tolerances I.D.	Outer Diameter	Wall Thickness	Tolerances Wall	Min. Bend Radius	Calculated Burst Pressure at 23°C	Working Pressure at 23°C	Packaging Unit*
	mm	mm	mm	mm	mm	mm	bar	bar	m
FTM3IMFCMD	3	+/-0.10	4	0.50	+/-0.05	32	25	6.3	100
FTM4INFCMD	4		6	1		36	34	8.5	
FTM6INFCMD	6		8	1.50	+/-0.10	54	34	8.5	
FTM6IOFCMD			9		100	19	4.8		
FTM8INFCMD	8		10	1	+/-0.05	96	25	6.3	
FTM9IOFCMD	9		12	1.50	+/-0.10	144	17	4.3	
FTM10INFCMD	10			1					

\*Part numbers listed are based on ID, and length of 100 meters on a reel.  
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## TYPICAL PHYSICAL PROPERTIES OF FLUORINATED ETHYLENE PROPYLENE (FEP)

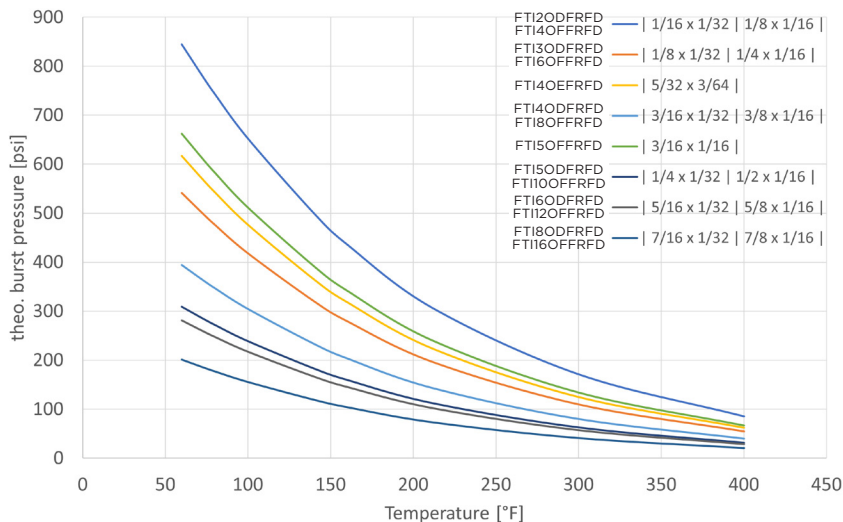
Property	Value
Max. Recommended Operating Temperature, °F (°C) w/ max pressure	See Graphs on following page
Minimum Recommended Operating Temperature, °F (°C)	See Graphs on following page
Color	Transparent*
Flammability	Not flammable UL94

The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the tubing's ability to withstand pressure, including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the tubing for use.

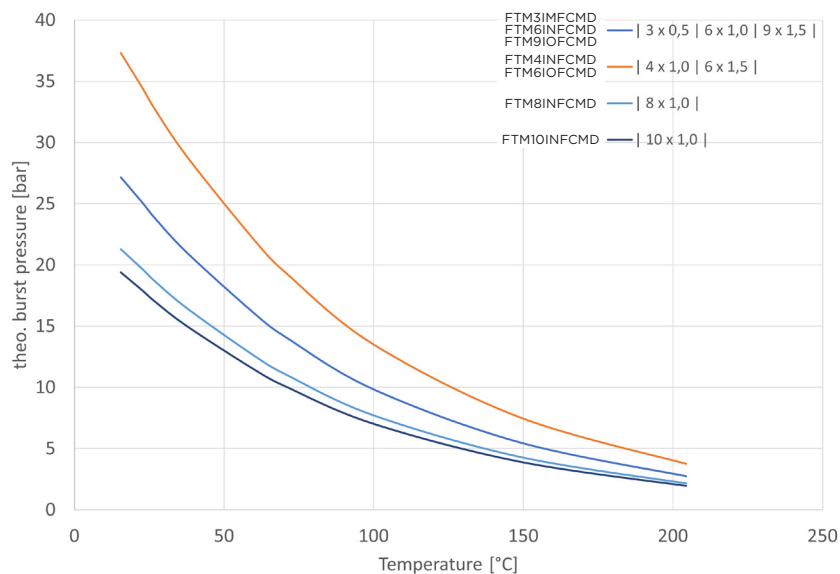
\* Additional colors upon request.  
 Unless otherwise noted, all tests were conducted at room temperature 73°F.

## TEMPERATURE VS BURST PRESSURE

### FURON FEP TUBING - STANDARD IMPERIAL SIZES



### FURON FEP TUBING - STANDARD METRIC SIZES



For pressure curves not represented on this graph, [contact us for more detail](#).



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**NOTE:** This document is intended to provide information about the product to enable you to consider whether generally the Product meets your application need and is not intended to provide product specification. This document should not be considered a Product warranty or guaranty. To the extent this document mentions any tests done by Saint-Gobain, such tests are done under controlled laboratory circumstances and hence other factors in your use and application may impact such values. Saint-Gobain strongly recommends that you conduct practical tests simulating the conditions of your application to ensure that the product meets your requirements for your specific application.

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