High Purity Fluoropolymer Tubing TL/TIL Series

Material: Super PFA

RoHS

Series and Specifications

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			Me	tric sizes	(TL seri	es)		Inch sizes (TIL series)							
Tubing	model	TL0403	TL0604	TL0806	TL1008	TL1210	TL1916	TIL01	TILB01	TIL05	TIL07	TIL11	TIL13	TIL19	TIL25
Nominal	diameter		-	-	-	-	-	1/8"	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
Tubing	size	ø4 x ø3	ø6 x ø4	ø8 x ø6	ø10 x ø8	ø12 x ø10	ø19 x ø16	1/8" x 0.086"	1/8" x 1/16"	3/16" x 1/8"	1/4" x 5/32"	3/8" x 1/4"	1/2" x 3/8"	3/4" x 5/8"	1" x 7/8"
0.D.	Basic diameter	4	6	8	10	12	19	3.18	3.18	4.75	6.35	9.53	12.7	19.05	25.4
(mm)	Tolerance		±(0.1		+0).2).1			±0.1				+0.2	
Thickness	Basic diameter	0.5			1		1.5	0.5	0.8	0.8	1.2		1	.6	
(mm)	Tolerance	±0.05		±().1		±0.15	±0.05	±0.08	±0.08	±0.12		±0	.15	
	10 m	_	-	-			•	_	_		_	•	٠	-	-
	20 m	٠	•	٠	•	•	•	•	-	•	•	•	٠	•	•
Bundle	50 m	•	•	۲	•	•	•	•			•	•	٠	•	•
	100 m	•	•	۲	•	•	•	•	-	•	•	•	•	•	-
	16 m (50 ft)	-	-	-	-	_	-	•	•	•	•	•	•	•	•
	33 m (100 ft)	-	-	-	-	-	-	•	•	•	•	•	•	•	•
Straight pipe	2 m	•	•	٠	•	•	•	•	-	•	•	•	•	•	•
Color		Translucent (color of material)													
Applicable fluid Refer to the applicable fluid in page 511.															
Applicat	ole fittings	ings Fluoropolymer Fittings LQ series													
Max.	20°C	1.0	1.0	1.0	0.9	0.7	0.6	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.5
operating	100°C	0.45	0.64	0.43	0.33	0.27	0.24	0.59	0.92	0.62	0.73	0.62	0.43	0.26	0.19
pressure	200°C	0.21	0.29	0.20	0.15	0.12	0.11	0.27	0.42	0.28	0.34	0.28	0.20	0.12	0.09
(MPa)	260°C	0.09	0.12	0.08	0.06	0.05	0.05	0.11	0.17	0.12	0.14	0.12	0.08	0.05	0.04
Burst pressur	re (MPa at 20°C)	4.9	6.9	4.7	3.6	2.9	2.6	6.4	9.9	6.7	7.9	6.7	4.6	2.8	2.0
Min. bending	Recommended radius	35	35	60	100	130	220	20	10	25	35	60	95	220	400
radius (mm)	Tube close bend radius	20	20	40	65	110	160	12	6	20	20	30	60	160	290
Max. operating ter	mperature (Fixed use)			_				26	50°C						
Material Super PFA															

Undertain
UND shown above does not apply to the straight pipe (2 m). Note 5) As for other commercial items, there are some cases it is not able to connect due to tolerance of dimensions.

Burst pressure drop curve



Temperature (O)							
Eluting fluorine ion amount	Note 6)	(µq/q)					

Туре	Fluorine ion						
Eluting amount	0.1 or less	_					

A 15 g piece of fluororesin tubing is cut off, washed in DI water (puer water) and immersed in 15 mL of 25% methyl alcohol extract at room temperature for 24 hours. Then the extract is diluted with DI water (puer water) to be subjected to a quantitative analysis of fluorine ions.



Tubing Model

Eluting	metal	ion	amount	Note 6)	(ng/cm ²)

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Туре	Al	Fe	Ni	Na	Ca
Eluting amount	4.5	0.3	0.2	7.1	1.3

The interior of the fluoro in tubing is washed with super d The intervolution of the functional industry is washed with Super deducted water. Approximately 20 g of super high purity hydrollinoit acid (48%) is measured and injected into the tubing. The interior wall of the tubing is immersed at normal temperature for one week with both ends of the tubing plugged. Then the extract was diluted with super deionized water to be subjected to a quantitative analysis on AI, Fe, Ni, Na and Ca by the stripping method.

SMC



At a temperature of 20°C, bend the tubing into a U

How to measure the mum bending radius

shape. Fix one end and gradually move the other end closer. Measure 2R at the point where the outside diameter's rate of change is 5%.

Length Applicable to both metric and inch size

Symbol	Туре	Length	
10		10 m	
20	Ball	20 m	
50	NUI	50 m	
100		100 m	
2S	Straight	2 m	

2Bside

-ixed

Length Applicable to inch size only

Symbol	Туре	Length		
16	Dell	16 m (50 ft)		
33	Roll	33 m (100 ft)		

Please refer to the "Series and Specifications" above, as the tubing length differs depending on each size.

Note 6) Figures shown in tables are representative values, not guaranteed values.

