

NAFLON™ PTFE/PFA/FEP Tubing

The NAFLON Tubing are pure fluoropolymer tubing, and contain no additives such as fillers or plasticizers. Each of the PTFE, PFA, and FEP Tubing has exceptional chemical-resistant, heat-resistant, and weather-resistant features.

Features

- Excellent nona properties prevent most dirtying and scaling.
- Almost no loss of electrical properties under high temperature, high humidity, and high frequency conditions, making these tubing excellent electrical insulators.
- Excellent weather-resistant properties.

Specifications

- Service temperature range: $-40^{\circ}\text{C} \sim 260^{\circ}\text{C}$ (PTFE/PTA),
 $-40^{\circ}\text{C} \sim 200^{\circ}\text{C}$ (FEP)
- Maximum usage pressure: Refer to page 22, "Maximum Usage Pressure".

Types

- PTFE Tubing is available in Red, Blue, Yellow, Green, Black color.
- ETFE Tubing are available upon request.

Standards

- PTFE Tubing: Please refer to page 5~6.
- PFA Tubing: Please refer to page 7.
- FEP Tubing: Please refer to page 7.

Caution

- There may be slight difference of color tone for PTFE Tubing depending on production lot. (There is no quality issue.)
- Please ask us for fluoropolymer tubing other than PTFE, PFA or FEP.



Standard Dimensions

TOMBO® No.9003 NAFLON™ PTFE Tubing

[Metric Size]

Nominal Dimensions		Inner Diameter (mm)		Wall Thickness (mm)		Length (m)		Nominal Dimensions		Inner Diameter (mm)		Wall Thickness (mm)		Length (m)			
Inner Diameter × Outer Diameter	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Inner Diameter × Outer Diameter	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance		
0.25 × 0.75	0.25	+0.20 -0.10	0.25	±0.10	10 20 30	+2% -0			13.0 × 15.0	13.0	±0.50	1.0	±0.13	10			
0.5 × 1.5	0.5	+0.30 -0.10	0.5						13.0 × 16.0	13.0		1.5	±0.18				
0.8 × 1.8	0.8		0.5						14.0 × 16.0	14.0	1.0	±0.13					
1.0 × 2.0	1.0	0.5	15.0 × 18.0						15.0	±0.60	1.5	±0.18					
1.0 × 3.0	1.0	1.0	16.0 × 17.5						16.0		0.75	+0.13					
1.5 × 2.5	1.5	+0.40	0.5						16.0 × 18.0	16.0	1.0	-0.10					
1.5 × 3.5	1.5	-0.20	1.0						16.0 × 19.0	16.0	1.5	±0.18					
2.0 × 3.0	2.0	+0.50	0.5							18.0 × 21.0	18.0	1.5	±0.18				
2.0 × 4.0	2.0		1.0							19.0 × 21.0	19.0	1.0	±0.13 ±0.10				
2.5 × 3.5	2.5	-0.20	0.5							±0.70	20.0 × 23.0	20.0	1.5			±0.18	
2.5 × 4.5	2.5	1.0	21.5 × 23.5								21.5	1.0	+0.13				
3.0 × 4.0	3.0	+0.50	0.5								22.0 × 24.0	22.0	1.0	-0.10			
3.0 × 5.0	3.0		1.0								23.0 × 25.0	23.0	1.0	±0.28			
4.0 × 5.0	4.0	-0.40	0.5								±0.80	23.0 × 27.0	23.0			2.0	+0.13 -0.10
4.0 × 6.0	4.0		1.0									25.0 × 27.0	25.0	1.0		±0.18	
5.0 × 6.0	5.0	+0.50	0.5									25.0 × 28.0	25.0	1.5			±0.18
5.0 × 7.0	5.0		1.0									25.0 × 29.0	25.0	2.0		±0.28	
6.0 × 7.0	6.0	-0.40	0.5									±1.00	25.0 × 29.0	25.0		2.0	±0.28
6.0 × 8.0	6.0		1.0										26.0 × 29.0	26.0		1.5	±0.18
7.0 × 8.0	7.0	+0.50	0.5										27.5 × 29.5	27.5		1.0	+0.13 -0.10
7.0 × 9.0	7.0		1.0		30.0 × 34.0	30.0	2.0	±0.28									
8.0 × 9.0	8.0	-0.40	0.5	±1.50	33.0 × 36.0	33.0	1.5	±0.18									
8.0 × 10.0	8.0		1.0		35.0 × 39.0	35.0	2.0	±0.28									
9.0 × 10.0	9.0	+0.50	0.5		38.0 × 42.0	38.0	1.5	±0.18									
9.0 × 11.0	9.0		1.0		39.0 × 42.0	39.0							1.5	±0.18			
10.0 × 11.0	10.0	±0.50	0.5			40.0 × 44.0	40.0	2.0					±0.28				
10.0 × 12.0	10.0		1.0			45.0 × 49.0	45.0							±1.50	2.0	±0.28	
11.0 × 12.0	11.0	±0.50	0.5				46.0 × 50.0	46.0	±2.00								
11.5 × 13.0	11.0		1.0				49.0 × 53.0	49.0						±2.00			
12.0 × 13.0	12.0	±0.50	0.5					50.0 × 54.0	50.0								
12.0 × 14.0	12.0		1.0					64.0 × 68.0	64.0								
12.5 × 14.0	12.5	0.75	76.0 × 80.0					76.0									

※ Please enquire for information relating to delivery dates and availability.

[Inch size]

Nominal Dimensions		Inner Diameter (mm)		Wall Thickness (mm)		Length (m)	
Inner Diameter × Outer Diameter	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	
1.59 × 3.17	1.59	±0.50 ±0.20	0.75	±0.13 ±0.10	10 20 30 50	+2% -0	
3.17 × 6.35	3.17	+0.50 -0.40	1.59	±0.18			
4.35 × 6.35	4.35		1.00	±0.13 ±0.10			
6.35 × 9.52	6.35	1.59	±0.18				
7.52 × 9.52	7.52	1.00	±0.13 ±0.10				
9.52 × 12.70	9.52	1.59	±0.18				
10.70 × 12.70	10.70	±0.50	1.00	±0.13 ±0.10			
15.88 × 19.05	15.88	±0.60	1.59	±0.18			

※ Please enquire for information relating to delivery dates and availability.

Standard Dimensions

TOMBO® No.9003 NAFLON™ PTFE Tubing (AWG Electrical Wiring)

AWG (No.)	Inner Diameter × Wall Thickness	Inner Diameter (mm)		Wall Thickness (mm)		Length (m)		AWG (No.)	Inner Diameter × Thickness	Inner Diameter (mm)		Wall Thickness (mm)		Length (m)																															
		Standard Value	Allowed Variance	Standard Value	Allowed Variance	Standard Value	Allowed Variance			Standard Value	Allowed Variance	Standard Value	Allowed Variance																																
30	0.31 × 0.28	0.31	+0.10	0.28	+0.10	10	+2%	14	1.69 × 0.33	1.69	+0.30	0.33	+0.20	10	+2%																														
28	0.38 × 0.28	0.38	0		-0.05			20	-0	13						1.93 × 0.33	1.93	0	0.38	-0.10	20	-0																							
26	0.46 × 0.28	0.46	+0.20		+0.15					50						-0	12						2.16 × 0.33	2.16	0.38	0.38	50	-0																	
24	0.57 × 0.28	0.57			-0.05												0.33						+0.20	-0.10					11	2.41 × 0.33	2.41	0.38	0.38	50	-0										
22	0.70 × 0.28	0.70	0		+0.30																								0	0.38	10					2.69 × 0.33	2.69	0.38	0.38	50	-0				
20	0.87 × 0.33	0.87	+0.30																												0					0.38	0.38					9	3.00 × 0.38	3.00	0.38
19	0.97 × 0.33	0.97		+0.30		0	0.38				0.38	8	3.35 × 0.38	3.35	0.38																											0.38	50	-0	
18	1.08 × 0.33	1.08						+0.30	0			0.38	0.38	7				3.76 × 0.38	3.76	0.38	0.38	50																							
17	1.20 × 0.33	1.20								+0.30				0		0.38		0.38	6						4.22 × 0.38	4.22	0.38	0.38																	
16	1.36 × 0.33	1.36															+0.30		0				0.38	0.38	5	4.72 × 0.38						4.72	0.38	0.38	50										
15	1.51 × 0.33	1.51			+0.30																				0	0.38			0.38										0.38	0.38	50				

※ Standard inventory items

TOMBO® No.9003 NAFLON™ PTFE Tubing (Other sizes)

Size (No.)	Thin Walled					Standard Walled					Thick Walled					Length (m)	
	Inner Diameter (mm)			Wall Thickness (mm)		Inner Diameter (mm)			Wall Thickness (mm)		Inner Diameter (mm)			Wall Thickness (mm)		Standard Dimensions	Allowed Variance
	Minimum	Standard	Maximum	Standard Value	Allowed Variance	Minimum	Standard	Maximum	Standard Value	Allowed Variance	Minimum	Standard	Maximum	Standard Value	Allowed Variance		
30	0.25	0.30	0.38	0.23	±0.05	0.25	0.30	0.38	0.15	±0.05	0.25	0.30	0.38	0.23	±0.05	10 20 30	+2% -0
28	0.33	0.38	0.48	0.23	±0.05	0.33	0.38	0.46	0.15	±0.05	0.33	0.38	0.48	0.23	±0.05		
26	0.41	0.46	0.56	0.23	±0.05	0.41	0.46	0.53	0.15	±0.05	0.41	0.46	0.56	0.23	±0.05		
24	0.51	0.56	0.68	0.30	±0.08	0.51	0.56	0.60	0.20	±0.05	0.51	0.56	0.68	0.25	±0.08		
23	0.58	0.66	0.76	0.30	±0.08	—	—	—	—	—	0.58	0.66	0.76	0.25	±0.08		
22	0.64	0.71	0.81	0.30	±0.08	0.60	0.71	0.81	0.20	±0.05	0.64	0.71	0.81	0.25	±0.08		
21	0.74	0.81	0.91	0.30	±0.08	—	—	—	—	—	0.74	0.81	0.91	0.25	±0.08		
20	0.81	0.86	1.02	0.41	±0.08	0.81	0.86	0.96	0.20	±0.05	0.81	0.86	1.02	0.30	±0.08		
19	0.91	0.96	1.12	0.41	±0.08	0.91	0.96	1.07	0.20	±0.05	0.91	0.96	1.12	0.30	±0.08		
18	1.02	1.07	1.24	0.41	±0.08	1.02	1.07	1.17	0.20	±0.05	1.02	1.07	1.24	0.30	±0.08		
17	1.14	1.19	1.37	0.41	±0.08	1.14	1.19	1.32	0.20	±0.05	1.14	1.19	1.37	0.30	±0.08		
16	1.30	1.35	1.55	0.41	±0.08	1.30	1.35	1.47	0.20	±0.05	1.30	1.35	1.55	0.30	±0.08		
15	1.45	1.50	1.70	0.41	±0.08	1.45	1.50	1.65	0.20	±0.05	1.45	1.50	1.70	0.30	±0.08		
14	1.62	1.68	1.88	0.41	±0.08	1.62	1.68	1.83	0.20	±0.05	1.62	1.68	1.88	0.30	±0.08		
13	1.83	1.93	2.08	0.41	±0.08	1.83	1.93	2.06	0.20	±0.05	1.83	1.93	2.08	0.30	±0.08		
12	2.06	2.16	2.31	0.41	±0.08	2.06	2.16	2.31	0.20	±0.05	2.06	2.16	2.31	0.30	±0.08		
11	2.31	2.41	2.56	0.41	±0.08	2.31	2.41	2.56	0.20	±0.05	2.31	2.41	2.56	0.30	±0.08		
10	2.59	2.69	2.84	0.41	±0.08	2.59	2.69	2.84	0.20	±0.05	2.59	2.69	2.84	0.30	±0.08		
9	2.90	3.00	3.15	0.51	±0.10	2.90	3.00	3.15	0.20	±0.05	2.90	3.00	3.15	0.38	±0.08		
1/8	3.05	3.18	3.30	0.51	±0.10	—	—	—	—	—	—	—	—	—	—		
8	3.28	3.38	3.58	0.51	±0.10	3.28	3.38	3.53	0.20	±0.05	3.28	3.38	3.58	0.38	±0.08		
7	3.66	3.76	4.01	0.51	±0.10	3.66	3.76	3.94	0.20	±0.05	3.66	3.76	4.01	0.38	±0.08		
6	4.11	4.22	4.52	0.51	±0.10	4.11	4.22	4.42	0.25	±0.08	4.11	4.22	4.52	0.38	±0.08		
5	4.62	4.72	5.03	0.51	±0.10	4.62	4.72	4.95	0.25	±0.08	4.62	4.72	5.03	0.38	±0.08		
4	5.18	5.28	5.69	0.51	±0.10	5.18	5.28	5.54	0.25	±0.08	5.18	5.28	5.69	0.38	±0.08		
3	5.82	5.93	6.32	0.51	±0.10	5.82	5.93	6.20	0.25	±0.08	5.82	5.93	6.32	0.38	±0.08		
1/4	6.35	6.48	6.60	0.51	±0.10	—	—	—	—	—	—	—	—	—	—		
2	6.55	6.68	7.06	0.51	±0.10	6.55	6.68	6.93	0.25	±0.08	6.55	6.68	7.06	0.38	±0.08		
1	7.34	7.47	7.90	0.51	±0.10	7.34	7.47	7.75	0.25	±0.08	7.34	7.47	7.90	0.38	±0.08		
5/16	7.95	8.15	8.48	0.51	±0.10	—	—	—	—	—	—	—	—	—	—		
0	8.26	8.38	8.81	0.51	±0.10	8.26	8.38	8.69	0.30	±0.08	8.26	8.38	8.81	0.38	±0.08		

※ Please enquire for information relating to delivery dates and availability.

TOMBO® No.9003-PFA/FEP NAFLON™ PFA/FEP Tubing

● PFA Tubing [Metric size]

Nominal Dimensions Inner Diameter × Outer Diameter	Outer Diameter (mm)		Wall Thickness (mm)		Length (m)	
	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance
2× 3	3.0	±0.10	0.5	±0.05	10, 20, 50, 100, 200	+1% -0
2× 4	4.0		1.0	±0.06		
3× 4	4.0		0.5	±0.05		
3× 5	5.0		1.0	±0.06		
4× 5	5.0		0.5	±0.05		
4× 6	6.0		1.0	±0.06		
5× 6	6.0		0.5	±0.05		
5× 7	7.0		1.0	±0.06	10, 20, 50, 100	
6× 7	7.0		0.5	±0.05		
6× 8	8.0		1.0	±0.06		
7× 8	8.0	0.5	±0.05			
7× 9	9.0	1.0	±0.06			
8× 9	9.0	0.5	±0.05			
8×10	10.0	1.0	±0.06			
9×10	10.0	0.5	±0.05			
9×11	11.0	1.0	±0.06			
9×12	12.0	1.5	±0.10			
10×12	12.0	1.0	±0.06			
11×12	12.0	±0.12	0.5	±0.05	+1% -0	
10×13	13.0	1.5	±0.10			
11×13	13.0	1.0	±0.06			
12×14	14.0	1.0	±0.06			
12×15	15.0	1.5	±0.10			
13×15	15.0	1.0	±0.06			
13×16	16.0	1.5	±0.10			
14×16	16.0	1.0	±0.06			
15×17	17.0	1.0	±0.06			
15×18	18.0	1.5	±0.10			
16×18	18.0	1.0	±0.06			
16×19	19.0	1.5	±0.10			
17×19	19.0	1.0	±0.06			
18×21	21.0	±0.15	1.5	±0.10	10, 20, 50	
19×22	22.0	1.5	±0.10			
20×22	22.0	1.0	±0.06			
20×23	23.0	1.5	±0.10			
22×25	25.0	1.5	±0.10			
23×25	25.0	1.0	±0.06			

※ Please enquire for information relating to delivery dates and availability.

[Inch size]

Nominal Dimensions Inner Diameter × Outer Diameter	Outer Diameter (mm)		Wall Thickness (mm)		Length (m)	
	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance
1.59× 3.17	3.17	±0.10	0.79	±0.05	10, 20, 50, 100, 200	+1% -0
3.17× 6.35	6.35		1.59	±0.10		
3.96× 6.35	6.35		1.20	±0.10		
4.35× 6.35	6.35		1.00	±0.06		
6.35× 9.52	9.52		1.59	±0.10		
7.52× 9.52	9.52	1.00	±0.06			
9.52×12.70	12.70	±0.12	1.59	±0.10	10, 20, 50, 100	
10.70×12.70	12.70	1.00	±0.06			
15.88×19.05	19.05	1.59	±0.10			
22.22×25.40	25.40	±0.15	1.59	±0.10	10, 20, 50	
28.00×31.80	31.80	±0.25	1.90	±0.20		
33.70×38.10	38.10	2.20	±0.20			

※ Please enquire for information relating to delivery dates and availability.

● FEP Tubing [Metric size]

Nominal Dimensions Inner Diameter × Outer Diameter	Outer Diameter (mm)		Wall Thickness (mm)		Length (m)	
	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance
2.0× 4.0	4.0	+0.20 -0.10	1.0	±0.10	10, 20, 50, 100, 200	+1% -0
4.0× 6.0	6.0		1.0			
6.0× 8.0	8.0		1.0			
8.0×10.0	10.0		1.0			
9.0×12.0	12.0		1.5			
10.0×12.0	12.0		1.0	±0.10		
10.0×12.0	12.0		1.0	±0.10		

※ Please enquire for information relating to delivery dates and availability.

[Inch size]

Nominal Dimensions Inner Diameter × Outer Diameter	Outer Diameter (mm)		Wall Thickness (mm)		Length (m)			
	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance	Standard Dimensions	Allowed Variance		
2.36× 3.18	3.18	+0.20 -0.10	0.41	±0.06	10, 20, 50, 100, 200	+1% -0		
3.18× 4.76	4.76		0.79					
4.57× 6.35	6.35		0.89	±0.10				
5.90× 7.94	7.94		1.02					
6.99× 9.53	9.53		1.27	±0.12				
9.56×12.70	12.70		±0.30 -0.10	1.57			±0.15	10, 20, 50, 100

※ Please enquire for information relating to delivery dates and availability.