

Insulated Tubing

TIT Series

Features

- ⦿ Materials: stainless steel or copper tubing, fibrous glass insulation, PVC or TPU jacket
- ⦿ Sizes: 1/4" to 1 1/4", 6 mm to 32 mm
- ⦿ Maintains temperature from -20°F to 400°F (-29°C to 204°C)
- ⦿ Stainless steel tubing bright annealed with machined finished external surface
- ⦿ For use with FITOK 6D series tube fittings, 4:1 safety factor for the tubing and connection part of fitting and tubing
- ⦿ Marked with brand, tubing material grade, standard, specification, heat number



Materials

Tubing

UNS	Grade	ASTM Standard	FITOK Designator	Composition %					Mechanical Properties			
				C	Cr	Ni	Mo	Cu	Yield Strength MPa	Tensile Strength MPa	Elongation %	Hardness
S31600/ S31603	316/ 316L	A269	SS	≤0.035 ^①	16-18	10-14	2.0-3.0	-	≥205	≥515	≥35	≤80 HRB
C12200	-	B75	CU	-	-	-	-	99.9	≥62	≥205	-	-

① The carbon content of tubing with outside diameter smaller than 1/2" or wall thickness smaller than 0.049" is allowed up to 0.04%.

PVC Jacket

Min. Tensile Strength	1530 psig (105 bar)
Min. Elongation	300%
Shore Hardness	80 HA
Max. Working Temperature	194°F (90°C)
Min. Installation Temperature	-31°F (-35°C)
Min. Working Temperature	-31°F (-35°C)
Resistance to Chloride	Yes
Max. Water Absorption	0.06%

Technical Data

Fractional

Material Designator	UNS	Tube O.D. in.	Wall Thickness ^① in.	Max. Working Temperature °F (°C)	Min. Working Temperature °F (°C)	Working Pressure psig	Min. Bend Radius in.	Jacket O.D. in. ±0.157 in.	Max. Coil Length ft	Straight-Length Tubing ft
SS	S31600/ S31603	1/4	0.028	400 (204)	-20 (-29)	4000	13.8	1.27	1640	20
		5/16	0.035			4000		1.34		
		3/8	0.049			4800		1.40		
		1/2	0.065			5100		1.68		
		5/8	0.083			5200	1.80	984		
		3/4	0.095			4900	/	1.93	/	
		7/8	0.095			4200		2.06		
		1	0.109			4200		2.18		
		1 1/4	0.120			3600	2.43			
CU	C12200	1/4	0.035			1600	9.84	1.27	1640	
		3/8	0.035			1000		1.40		
		1/2	0.035 ^②			800		1.68		
			0.049			1100		1.68		

Metric

Material Designator	UNS	Tube O.D. mm	Wall Thickness ^① mm	Max. Working Temperature °C (°F)	Min. Working Temperature °C (°F)	Working Pressure bar	Min. Bend Radius mm	Jacket O.D. mm ±4 mm	Max. Coil Length m	Straight-Length Tubing m
SS	S31600/ S31603	6	1.0	204 (400)	-29 (-20)	420	350	32	500	6
		8	1.0			310		34		
		10	1.2			300		36		
		12	1.5			330		42		
		14	2.0			380		44	400	
		15	2.0			360		45	300	
		16	2.0			330	46			
		18	2.0			290	/	48	/	
		20	2.0			260		50		
		22	2.0			230		52		
		25	3.0			320		55		
		28	3.0			280		58		
		30	3.0			260		60		
						32	3.0	240	62	
CU	C12200	6	1.0			140	250	32	500	
		10	1.0	80	36					
		12	1.0 ^②	60	42					
			1.5	100	42					

① Refer to TMP series tubing for other wall thicknesses of S31600/S31603.

② Not recommended for use with 6D series tube fittings in gas service.

Ordering Information

1. Standard length: 20 ft and 6 m

2. S31600/S31603 material jacketed tubing is ordered in the same way as TCT series coiled tubing, for different lengths see Ordering Information of TCT series.

Ordering Number Description

