

# Alloy 2507 Seamless Super Duplex Tubing

## Fractional Sizes



### Features

- Alloy 2507 material provides excellent corrosion resistance in chloride-containing environments.
- All Alloy 2507 tubing, tube fittings, and weld fittings offered by Swagelok are made from a controlled-chemistry Alloy 2507 material with a minimum pitting resistance equivalent (PRE) value of 42.5.
- Sizes include 1/4, 3/8, 1/2, 5/8, 3/4, and 1 in. outside diameter.
- Tubing nominal wall thickness meets ASTM A789.
- Tube markings include size, material type/grade, specifications, heat number, and other information.

### Chemical Composition

Element	Composition wt. %
Chromium	25.0
Nickel	7.0
Molybdenum	4.0
Manganese	1.2 max
Silicon	0.8 max
Carbon	0.030 max
Sulfur	0.02
Phosphorous	0.035 max
Nitrogen	0.3

### Material Standards

Grade	UNS	ASTM
Alloy 2507 (PRE 42.5)	S32750	A789

### Elevated Temperature Ratings

Temperature		Elevated Temperature Factors <sup>①</sup>	
°F	°C	Alloy 2507 Super Duplex Tubing	
		B31.3 Base Code	B31.3 Chapter IX
150	66	1.00	0.92
200	93	0.99	0.88
250	121	0.96	0.84
300	149	0.94	0.81
400	204	0.91	0.76
500	260	0.89 <sup>②</sup>	0.73 <sup>②</sup>

<sup>①</sup> Elevated temperature factor = suggested allowable working pressure at elevated temperature / suggested allowable working pressure at room temperature.

<sup>②</sup> Alloy 2507 super duplex tubing has a maximum temperature rating of 482°F (250°C).

## Ordering Information, Dimensions, and Pressure Ratings

Select an ordering number.

Tube OD in.	Nominal Wall Thickness in.	Ordering Number	Nominal Length ft (m)	Weight lb/ft (kg/m)	ASME B31.3	ASME B31.3 Chapter IX
					Pressure Rating psig (bar)	
1/4	0.035	2507-T4-S-035-20	20 (6.1)	0.08 (0.12)	10 000 (690)	14 100 (971)
	0.049	2507-T4-S-049-20		0.10 (0.15)	15 000 (1040) <sup>①</sup>	22 600 (1557) <sup>①</sup>
	0.065 <sup>②</sup>	2507-T4-S-065-20		0.13 (0.19)	19 800 (1370)	30 200 (2080)
3/8	0.049	2507-T6-S-049-20		0.17 (0.25)	10 100 (700) <sup>①</sup>	14 400 (992) <sup>①</sup>
	0.065	2507-T6-S-065-20		0.21 (0.31)	12 700 (880)	18 300 (1260)
	0.083 <sup>②</sup>	2507-T6-S-083-20		0.26 (0.39)	16 800 (1160)	24 700 (1701)
1/2	0.065	2507-T8-S-065-20		0.30 (0.45)	10 100 (700) <sup>①</sup>	14 400 (992) <sup>①</sup>
	0.083	2507-T8-S-083-20		0.36 (0.54)	12 900 (890)	18 600 (1281)
	0.095 <sup>②</sup>	2507-T8-S-095-20		0.41 (0.61)	15 300 (1060) <sup>①</sup>	22 500 (1550) <sup>①</sup>
5/8	0.083	2507-T10-S-083-20		0.48 (0.71)	10 100 (700)	14 400 (992)
	0.095 <sup>②</sup>	2507-T10-S-095-20		0.53 (0.79)	12 100 (840) <sup>①</sup>	17 400 (1198) <sup>①</sup>
3/4	0.083	2507-T12-S-083-20		0.58 (0.86)	8 500 (590) <sup>①</sup>	12 000 (826) <sup>①</sup>
	0.095	2507-T12-S-095-20	0.66 (0.98)	10 000 (690) <sup>①</sup>	14 300 (985) <sup>①</sup>	
	0.109 <sup>②</sup>	2507-T12-S-109-20	0.74 (1.10)	11 100 (770)	16 000 (1102)	
1 <sup>③</sup>	0.109	2507-T16-S-109-20	1.02 (1.52)	8 100 (560)	11 500 (792)	
	0.120	2507-T16-S-120-20	1.12 (1.67)	9 100 (630)	12 800 (881)	
	0.134	2507-T16-S-134-20	1.20 (1.80)	10 000 (690) <sup>①</sup>	15 000 (1034) <sup>①</sup>	

① Pressure ratings based on special wall thickness tolerance for Swagelok® Alloy 2507 tubing.

② Not suitable for use with Swagelok 2507 tube fittings.

③ This size limited to 500 psig when used with Swagelok alloy 2507 tube fitting.

### Fitting Products

Swagelok offers a wide variety of tubing products.

Contact your authorized Swagelok representative or see these Swagelok catalogs for more information:

- Swagelok *Gaugeable Alloy 2507 Super Duplex Tube Fittings catalog, MS-01-174*
- Swagelok *Alloy 2507 Super Duplex Weld Fittings catalog, MS-01-173*
- Swagelok *Medium- and High-Pressure Fittings, Tubing, Valves, and Accessories catalog, MS-02-472*
- Swagelok *Medium- and High-Pressure Fittings and Adapters—Alloy Materials catalog, MS-02-474*
- Swagelok *Gaugeable Tube Fittings and Adapter Fittings catalog, MS-01-140*



### Tubing Tools and Accessories

See the Swagelok *Tubing Tools and Accessories* catalog, MS-01-179, for more information.



### Swagelok Orbital Welding System

See the Swagelok *Welding System M200 Power Supply* catalog, MS-02-342, for more information.



⚠ **Do not mix components of other materials with Alloy 2507 super duplex tubing.**

⚠ **Steel bend shoes are required to bend Alloy 2507 super duplex tubing with a Swagelok bench top tube bender.**

#### Safe Product Selection

**When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.**

### Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit [swagelok.com](http://swagelok.com) or contact your authorized Swagelok representative.