

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.

Material Standards

| Grade | UNS | ASTM |
|-----------------------|--------|------|
| Alloy 2507 (PRE 42.5) | S32750 | A789 |

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 |

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) | 12 300 (850) |
| | 0.049 | 2507-T4-S-049-20 | | 0.10 (0.15) | 15 000 (1040) ^① | 19 000 (1310) ^① |
| | 0.065 ^② | 2507-T4-S-065-20 | | 0.13 (0.19) | 19 800 (1370) | 26 200 (1810) |
| 3/8 | 0.049 | 2507-T6-S-049-20 | | 0.17 (0.25) | 10 100 (700) ^① | 12 400 (860) ^① |
| | 0.065 | 2507-T6-S-065-20 | | 0.21 (0.31) | 12 700 (880) | 15 800 (1090) |
| | 0.083 ^② | 2507-T6-S-083-20 | | 0.26 (0.39) | 16 800 (1160) | 21 400 (1480) |
| 1/2 | 0.065 | 2507-T8-S-065-20 | | 0.30 (0.45) | 10 100 (700) ^① | 12 400 (860) ^① |
| | 0.083 | 2507-T8-S-083-20 | | 0.36 (0.54) | 12 900 (890) | 16 200 (1120) |
| | 0.095 ^② | 2507-T8-S-095-20 | | 0.41 (0.61) | 15 300 (1060) ^① | 19 400 (1340) ^① |
| 5/8 | 0.083 | 2507-T10-S-083-20 | | 0.48 (0.71) | 10 100 (700) | 12 400 (860) |
| | 0.095 ^② | 2507-T10-S-095-20 | | 0.53 (0.79) | 12 100 (840) ^① | 15 000 (1040) ^① |
| 3/4 | 0.083 | 2507-T12-S-083-20 | | 0.58 (0.86) | 8 500 (590) ^① | 10 400 (720) ^① |
| | 0.095 | 2507-T12-S-095-20 | | 0.66 (0.98) | 10 000 (690) ^① | 12 400 (860) ^① |
| | 0.109 ^② | 2507-T12-S-109-20 | | 0.74 (1.10) | 11 100 (770) | 13 900 (960) |
| 1 ^③ | 0.109 | 2507-T16-S-109-20 | | 1.02 (1.52) | 8 100 (560) | 10 000 (690) |
| | 0.120 | 2507-T16-S-120-20 | | 1.12 (1.67) | 9 100 (630) | 11 100 (770) |

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

② Not suitable for use with Swagelok tube fittings.

③ Swagelok tube fittings not available.

Fittings

See the Swagelok *Gaugeable Alloy 2507 Super Duplex Tube Fittings* and Swagelok *Alloy 2507 Super Duplex Weld Fittings* catalogs, MS-01-174 and MS-01-173, for more information.



Swagelok Orbital Welding System

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



Tubing Tools and Accessories

See the *Swagelok Tubing Tools and Accessories* catalog, MS-01-179, 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 or contact your authorized Swagelok representative.