

ASTM A312 TP316L Pipe - Data Sheet

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Supply range

Outside diameter 1/8 inch - 24 inch (10.3 - 610 mm)

Wall thickness SCH 5S - SCH 80S, or by wall thickness

Length SRL 5.8 m, DRL 11.8 m, or fixed length

Ends Plain end, beveled end, threaded

Surface treatment Pickled, annealed and pickled, bright annealed, polished

Delivery condition Annealed; welded pipe as-welded where the specification and the order allow

Manufacturing process Seamless, welded, or heavily cold worked

Heat treatment Solution annealed

Delivery standard ASTM A312 / ASME SA312, dimensions to ASME B36.19M for the S schedules

Inspection and documentation

Inspection Inspected by the producing mill's own inspection department, which is independent of production, against the delivery standard above. Third-party inspection - SGS, BV or TUV, or an inspector you send yourself - can be arranged at the mill or before shipment; give us the dates and the scope at the order stage.

Certificate A mill test certificate to EN 10204 3.1 showing the heat number, the chemical composition and the mechanical results is standard on every order. EN 10204 3.2, countersigned by the inspector you nominate, is available on request.

Documents with the goods The mill test certificate and the packing list travel with the shipment, and the heat number is traceable from cast through to the finished product.

Packing Sea-worthy export packing: bundled by size with end protection, corrosion protection on request, stencilled with the size, grade and heat number.

MOQ One bundle or one truckload; mixed sizes within a bundle accepted.

Lead time Counted from order confirmation, not from the enquiry. Stock sizes 7-15 days; mill run or non-stock 4-6 weeks. The delivery window is fixed on the quotation.

How we supply Sourced through partner mills; the producing mill is named on the quotation.

Chemical composition

Element	Range	Element	Range
Carbon, C	0.035 max	Nickel, Ni	10.0 - 14.0
Manganese, Mn	2.00 max	Phosphorus, P	0.045 max
Silicon, Si	0.75 max	Sulphur, S	0.030 max
Chromium, Cr	16.0 - 18.0	Molybdenum, Mo	2.00 - 3.00

Mechanical properties

Grade	Tensile strength	Yield strength	Elongation	Hardness
TP316L (ASTM A312)	485 MPa min (70,000 psi)	170 MPa min (25,000 psi)	35% min	not specified for the grade
TP316 (for reference)	515 MPa min (75,000 psi)	205 MPa min (30,000 psi)	35% min	not specified for the grade
TP304L (for reference)	485 MPa min (70,000 psi)	170 MPa min (25,000 psi)	35% min	not specified for the grade

Source

Source: chemical composition requirements of ASTM A312 / ASME SA312. The standard is the governing document.

Source: tensile requirements of ASTM A312 / ASME SA312. The standard is the governing document.

TP316 allows up to 0.08% carbon and TP316L caps it at 0.035%, which limits carbide precipitation at welds. The cost of the lower ceiling is strength: 485 MPa tensile and 170 MPa yield against 515 MPa and 205 MPa. Source: this page's TP316L composition and mechanical property tables.

Page: <https://mejorsteel.com/standards/astm-a312-tp316l-pipe/> | The standard is the governing document. MOQ, lead time and price are confirmed on request.