

API 5CT 13Cr Tubing - Data Sheet

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Supply range

Outside diameter 2-3/8 inch - 4-1/2 inch (60.3 - 114.3 mm) in tubing sizes; casing sizes on request

Wall thickness by the API 5CT weight designation in lb/ft, or by wall thickness on request

Length R1 4.88 - 7.62 m, R2 7.62 - 10.36 m, R3 10.36 - 14.63 m

Ends NUE, EUE, premium connection, or as specified; premium connections are common in CO2 service

Surface treatment Bare, phosphate, or as specified; thread protectors are normally supplied with the string

Delivery condition Quenched and tempered; the 80 ksi grade is delivered as API 5CT L80 type 13Cr, the 95 ksi and 110 ksi grades to the mill or buyer specification

Manufacturing process Seamless

Heat treatment Quenched and tempered

Delivery standard API 5CT / ISO 11960 for L80 type 13Cr; the mill or buyer specification named on the order for the 95 ksi and 110 ksi grades

Types Three strength levels in common use - 13Cr-80 (API 5CT L80 type 13Cr), 13Cr-95 and 13Cr-110 (super 13Cr); only the 80 ksi level is a plain API 5CT grade

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
Chromium, Cr	12.00 - 14.00	Carbon, C	0.15 - 0.22
Manganese, Mn	0.25 - 1.00	Nickel, Ni	0.50 max
Silicon, Si	1.00 max	Molybdenum, Mo	commonly about 0.50 in 13Cr-80; not treated here as a fixed API requirement
Phosphorus, P	0.020 max	Sulphur, S	0.010 max

Mechanical properties

Grade	Yield strength	Tensile strength	Elongation	Hardness
L80 type 13Cr / 13Cr-80 (API 5CT)	552 - 655 MPa (80,000 - 95,000 psi)	655 MPa min (95,000 psi)	per the API 5CT formula	23 HRC max (about 241 HBW) - the L80 hardness limit
13Cr-95 (mill or buyer specification)	655 MPa min (95,000 psi)	per the mill specification	per the mill specification	per the mill specification
13Cr-110 / super 13Cr (mill or buyer specification)	758 MPa min (110,000 psi)	per the mill specification	per the mill specification	per the mill specification

Source

Source: chemical composition requirements of API 5CT / ISO 11960. The standard is the governing document.

Source: tensile requirements of API 5CT / ISO 11960. The standard is the governing document.

Only the L80 type 13Cr designation can be checked against the API 5CT grade table: the chromium range, the yield range, the minimum tensile strength and the 23 HRC hardness limit all come from the standard. Source: this page's 13Cr grade and mechanical property tables.

Page: <https://mejorsteel.com/standards/api-5ct-13cr-tubing/> | The standard is the governing document. MOQ, lead time and price are confirmed on request.