SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.4401 · CLASS 1.4

0H17N12M2T

Material no. 1.4401

also listed as X 5 CrNiMo 18 10

Chemical composition, mechanical and physical property values, and 134 standard designations from 19 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
8 g/cm³	134 in 19 regions	11 on file

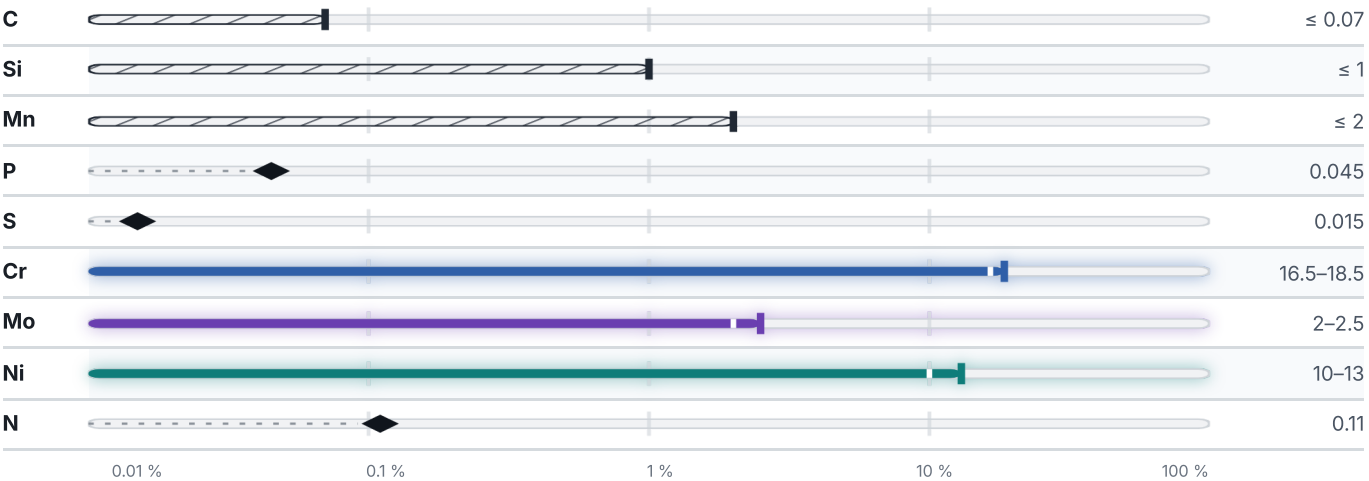
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 65.5 % · Cr — 17.5 % · Ni — 11.5 % · Mo — 2.3 % · Traces & impurities · 3.2 %

Logarithmic scale, 0.01 % to 100 % — every value here compares directly, decade by decade.



The scale is logarithmic, not the element's raw share of the alloy — the only honest way to fit 0.01 % and 100 % in one picture, and it means every value here can be compared with every other.

Predicted transformation temperatures

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

13 values across 4 conditions

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
Pipe	540	220	40	55	1500
Pipe	540	220	35	50	1400
COLD ROLLED					HV
Cold rolled					220–400
QUENCHED AND TEMPERED					HB
Quenched and tempered					215
SOLUTION ANNEALED					HB
Solution annealed					200

Physical properties

2 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10^-6/K
20	7.9	214	–
100	–	–	17.1
200	–	–	17.6
300	–	–	18.1
400	–	184	18.4
500	–	175	19
600	–	–	19.3
700	–	–	19.6
800	–	–	19.8

PROPERTY	VALUE	UNIT
Density	8	g/cm³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	

Designations across standards

134 designations · 5 documented as identical

United States 67

S31600	uns
S31603	uns
S31609 This grade's own name	uns
30316	aisi-sae
316	aisi-sae
316H This grade's own name	aisi-sae
316L	aisi-sae
S31600	aisi-sae
S31609	aisi-sae
A 182 Grade F316	astm
A 312 Grade TP316	astm
A 403 Grade WP316	astm
A1012	astm
A1022	astm
A1049	astm
A167	astm
A182	astm
A193	astm
A194	astm
A213	astm
A240	astm
A249	astm
A264	astm
A269	astm
A270	astm
A271	astm
A276	astm
A312	astm
A313	astm
A314	astm
A320	astm
A336	astm
A358	astm
A368	astm
A376	astm
A403	astm
A409	astm
A430	astm
A479	astm
A484	astm
A580	astm
A632	astm
A666	astm
A688	astm
A793	astm
A813	astm
A814	astm
A826	astm
A831	astm
A943	astm
A965	astm
A988	astm
F 138	astm
F1667	astm
F2215	astm
F2281	astm
F3184	astm
F593	astm
F594	astm
F738	astm
F836	astm
F837	astm
F879	astm
F899	astm
F957	astm
TP316	astm
TP316L	astm

Japan 13

SUS 316A	jis
SUS 316FB	jis
SUS 316HFB	jis
SUS 316HTB	jis
SUS 316HTP	jis
SUS 316TB	jis
SUS 316TBS	jis
SUS 316TKA	jis
SUS 316TKC	jis
SUS 316TP	jis
SUS F 316	jis
SUS Y 316	jis
SUS316	jis

United Kingdom 11

316 S 17	bs
316 S 19	bs
316 S 33	bs
316 S 40	bs
316 S 41	bs
316S16	bs
316S31	bs
58J	bs
845	bs
EN58J	bs
S31 EN 58J	bs

United States / Aerospace 9

5507	ams
5524	ams
5573	ams
5584	ams
5648	ams
5649	ams
5653	ams
5690	ams
5691	ams

France 7

Z2CND17-12	afnor
Z3CND17-11-02	afnor
Z6CND17-11-02	afnor
Z6CND17.11	afnor
Z6CND17.12	afnor
Z7CND17-11-02	afnor
Z7CND17-12-02	afnor

Russia / CIS 6

03Ch17N13M2	gost
03X17H13M2	gost
03X17H14M2	gost
08Ch16N11M3	gost
08KH16N11M3	gost
08X16H11M3	gost

Spain 5

03	une
F.310.A	une
F.3534 This grade's own name	une
F.3543	une
F.3543-X5CrNiMo17-12	une

Europe 3

1.4401	din-en
X 5 CrNiMo 18 10 This grade's own name	din-en
X5CrNiMo17-12-2 This grade's own name	din-en

China 2

0Cr17Ni11Mo2	gb
0Cr17Ni12Mo2	gb

Poland 2

00H17N14M2	pn
0H17N12M2T	pn

Italy 1

X5CrNiMo17-12	uni

Sweden 1

2347	ss

Czechia 1

17346	csn

Slovakia 1

17 346	stn

Brazil 1

316	abnt

Serbia 1

Č.4573	srps

former Yugoslavia 1

Č.4573	jus

Australia / New Zealand 1

316	as-nzs

Austria 1

X5CrNiMo17-12-2KW	onorm

Note on use. The data is compiled to the best of our knowledge from publicly available standards and manufacturer documentation. It replaces neither material testing nor an inspection document to EN 10204. Please request a mill certificate to EN 10204 2.1, 3.1 or 3.2 together with your enquiry. The standard in its current valid edition always prevails.

Enquiry about 0H17N12M2T

Quotation, availability, mill certificate or a technical question — directly on the material page.

Start an enquiry

DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	1.4401	Aug 20, 2026