

MATERIAL NUMBER 1.4310 · CLASS 1.4

X10CrNi18-8

Material no. 1.4310

also listed as X 12 CrNi 17 7

Chemical composition, mechanical and physical property values, and 97 standard designations from 17 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
8 g/cm ³	97 in 17 regions	10 on file

Chemical composition

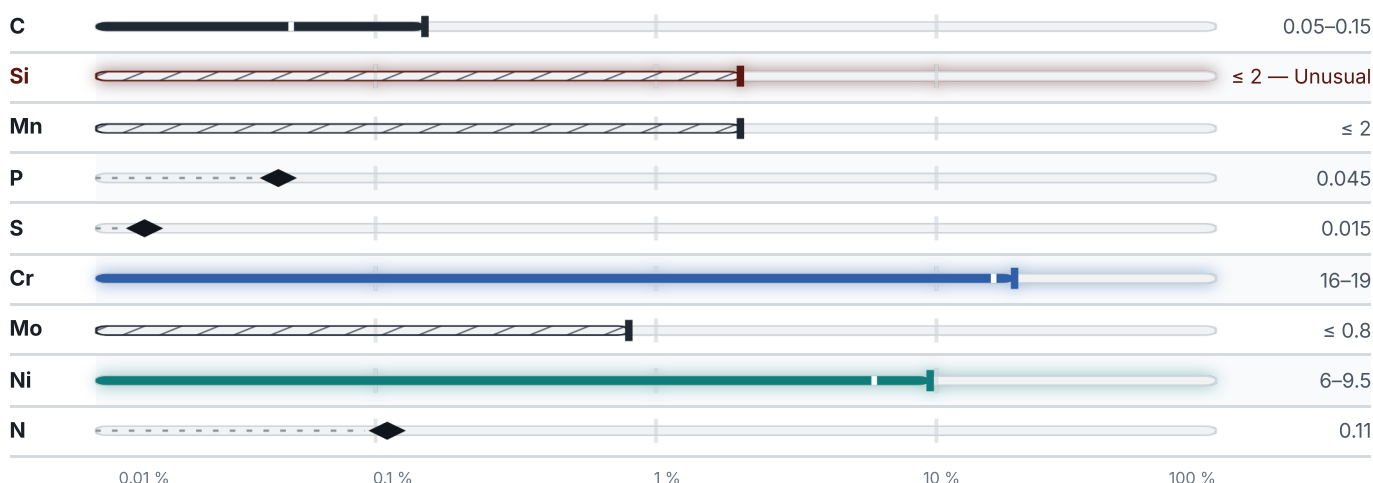
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 69.7 % ● Cr — 17.5 % ● Ni — 7.8 % ● Si — 2 % ● Traces & impurities · 3.1 %

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

23 values across 5 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²	HB
Bar, GOST 5949-75	1080	880	12	50	690	–
Forging, GOST 25054-81	1176	980	12–13	50	690	–
07KH16N6 (07X16H6) , Forging GOST 25054-81	–	–	–	–	–	341–415
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	HB	HRB	HV
Plate/Sheet Hot-rolled	520	205	40	–	–	–
Hot-rolled	–	–	–	207	95	218
SOFT ANNEALED						HB
Soft annealed						230
CONDITION · DIMENSION	RM N/mm ²		RE N/mm ²		A5 %	
Sheet trick, GOST 7350-77	1180		390		15	
CONDITION · DIMENSION	RM N/mm ²		A5 %			
Sheet thin, GOST 5582-75	1180		20			

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	8	g/cm ³

Designations across standards

97 designations · 7 documented as identical

United States	31	United States / Aerospace	22
S30100	This grade's own name uns	5358	ams
S30200	This grade's own name uns	5500	ams
S45500	uns	5515	ams
301	This grade's own name aisi-sae	5516	ams
302	This grade's own name aisi-sae	5517	ams
30301	aisi-sae	5518	ams
30302	aisi-sae	5519	ams
J 230 (1994)	aisi-sae	5600	ams
J230	This grade's own name aisi-sae	5617	ams
S30100	aisi-sae	5636	ams
S30200	aisi-sae	5637	ams
A240	astm	5688	ams
A264	astm	5693	ams
A276	astm	5866	ams
A313	astm	5901	ams
A314	astm	5902	ams
A368	astm	5903	ams
A473	astm	5904	ams
A478	astm	5905	ams
A479	astm	5906	ams
A480	astm	6693	ams
A492	astm	7241	ams
A493	astm		
A511	astm	Russia / CIS	9
A554	astm	07KH16N6	gost
A580	astm	07X16H6	gost
A666	astm	07X16H6	gost
F1669	astm	12Ch18N9	gost
F2215	astm	12Kh18N9	gost
F599	astm	ст.07X16H6	gost
F899	astm	X16H6	gost
		X17H8	gost
		ЭП288	gost
		United Kingdom	5
		301 S 22	bs
		301S21	bs
		302S25	bs
		302S26	bs
		CrNi17/7	bs
		France	5
		Z11CN17-08	afnor
		Z11CN18-08	afnor
		Z12CN17.07	afnor
		Z12CN18-09	afnor
		Z12CN18.08	afnor

Japan	5	Czechia	2
SUS 301	jis	17241	csn
SUS 301-CSP	jis	17242	csn
SUS 302	jis		
SUS 302FB	jis	Brazil	2
SUS301J1	jis	301	abnt
		302	abnt
Europe	3	International	1
1.4310	din-en	X9CrNi18-8	iso
X 12 CrNi 17 7	din-en		
X10CrNi18-8	din-en	Sweden	1
		2331	ss
Spain	3	Slovakia	1
F-3507	une	17 241	stn
F.3517	une		
X10CrNi18-9	une	Poland	1
		1H18N9	pn
China	3	Serbia	1
1Cr17Ni7	gb	Č.4571	srps
1Cr18Ni9	gb		
Cr17Ni7	gb		
Italy	2		
X10CrNi18-8	uni		
X12CrNi17-07	uni		

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 X10CrNi18-8

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

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DATASHEET ONLINE

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GRADE SEARCH

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ISSUED

Aug 20, 2026