

MATERIAL NUMBER 1.4312 · CLASS 1.4

AoX12CrNiTi18-9

Material no. 1.4312

also listed as GX10CrNi18-8

Chemical composition, mechanical and physical property values, and 43 standard designations from 15 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	43 in 15 regions	8 on file

Chemical composition

Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 69.1 % ● Cr — 18.3 % ● Ni — 9 % ● Si — 2 % ● Traces & impurities · 1.7 %

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

Not enough recorded composition to predict a transformation temperature for this grade — missing: Mo.

Mechanical properties

5 values across 1 conditions

QUENCHING 1050 - 1100 °C	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
to 100	441	177	25	35	981

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Heat treatment

2 regimes

STEP	TEMPERATURE	MEDIUM
Quenching	950–1050 °C	Water
Quenching	1050–1100 °C	—

Designations across standards

43 designations · 2 documented as identical

Russia / CIS	12	Japan	3
10Ch18N9L	gost	SCS12	jis
10Kh18N9BL	gost	SCS13	jis
10KH18N9L	gost	SCS13A	jis
10X18H9Л	gost		
12KH18N9TL	gost	China	3
12X18H9TЛ	gost	ZG12Cr18Ni9Ti	gb
PK10Kh18N9T	gost	ZG1Cr18Ni9	gb
ПК10Х18Н9Т-6.4	gost	ZG1Cr18Ni9Ti	gb
ПК10Х18Н9Т-6.8	gost		
ПК10Х18Н9Т-7.2	gost	France	2
ПК10Х18Н9Т-7.6	gost	Z10CN18-9M	afnor
X18H9БЛ	gost	Z6CN18-10M	afnor
United States	5	Czechia	2
J92701 This grade's own name	uns	422 931	csn
CF-16F	aisi-sae	422933	csn
J92630	aisi-sae		
J92701	aisi-sae	Poland	2
J92710	aisi-sae	LH18N9	pn
		LH18N9T	pn
United Kingdom	3	Hungary	2
302C25	bs		
ANC 3 grade A	bs	AoX12CrNi18-9	msz
ANC3A	bs	AoX12CrNiTi18-9	msz

Romania	2	Europe	1
T15NiCr180	stas	GX10CrNi18-8	This grade's own name din-en
T15TiNiCr180	stas		
Bulgaria	2	Italy	1
Ch18N10SL	bds	GX6CrNi20-10	uni
Ch18N10TSL	bds		
South Korea	2	Sweden	1
SSC12	ks	2333	ss
SSC13A	ks		

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 AoX12CrNiTi18-9

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	1.4312	Aug 20, 2026