

MATERIAL NUMBER 1.4542 · CLASS 1.4

X5CrNiCuNb16-4

Material no. 1.4542

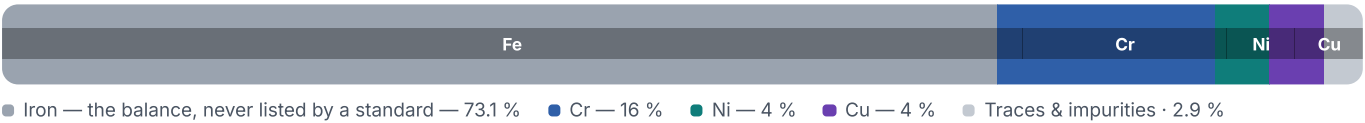
Chemical composition, mechanical and physical property values, and 48 standard designations from 6 regions.

DENSITY 7.8 g/cm³	OTHER DESIGNATIONS 48 in 6 regions	PROPERTY VALUES 10 on file
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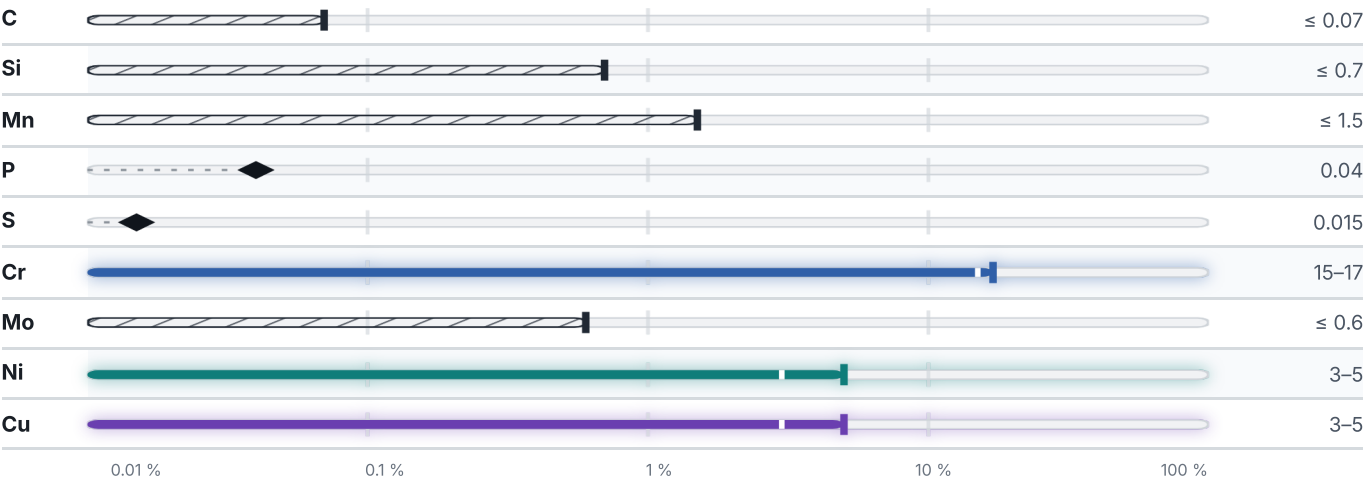
Chemical composition

Mass fraction in %

What this alloy is



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

4 values across 2 conditions

SOLUTION ANNEALED			HB
Solution annealed			360
CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A %
Casting Precipitation hardening treatment	850–1240	665–1030	6–10

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.8	g/cm³

Designations across standards

48 designations · 9 documented as identical

United States22		France8	
S17400	This grade's own name	uns	17-4 DPafnor
17-4 PH	This grade's own name	aisi-sae	174 PHafnor
630		aisi-sae	X17U4afnor
AISI630	This grade's own name	aisi-sae	Z67CNU15.05afnor
S17400		aisi-sae	Z6CNU1704afnor
17-4 PH		astm	Z7CNU15-05This grade's own nameafnor
A 484		astm	Z7CNU16-04afnor
A 564		astm	Z7CNU17-04This grade's own nameafnor
A 564 630	This grade's own name	astm	
A 564 T 630		astm	United States / Aerospace6
A 693		astm	5604ams
A1028		astm	5622ams
A56		astm	5642ams
A564 Grade 630		astm	5643ams
A564 Type 630		astm	5825ams
A705		astm	5827ams
A982		astm	
F593		astm	Russia / CIS6
F594		astm	05Ch16N4D2Bgost
F738		astm	05X16H4Д2Bgost
F836		astm	07Ch14N4DBGost
F899		astm	07Ch16N4D4B-Shgost
			07X14H4ДBgost
			07X16H4Д4Б-Шgost
			Japan4
			SCS 24This grade's own namejis
			SUS 630This grade's own namejis
			SUS 630FBjis
			SUS F 630jis

Europe	2
1.4542	din-en
X5CrNiCuNb16-4 This grade's own name	din-en

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 X5CrNiCuNb16-4

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	1.4542	Aug 20, 2026