

MATERIAL NUMBER 1.4542 · CLASS 1.4

5642

Material no. 1.4542

also listed as X5CrNiCuNb16-4

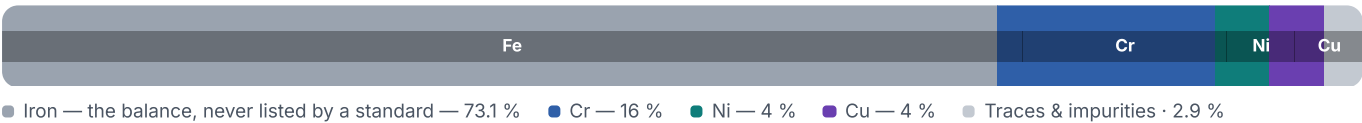
Chemical composition, mechanical and physical property values, and 48 standard designations from 6 regions.

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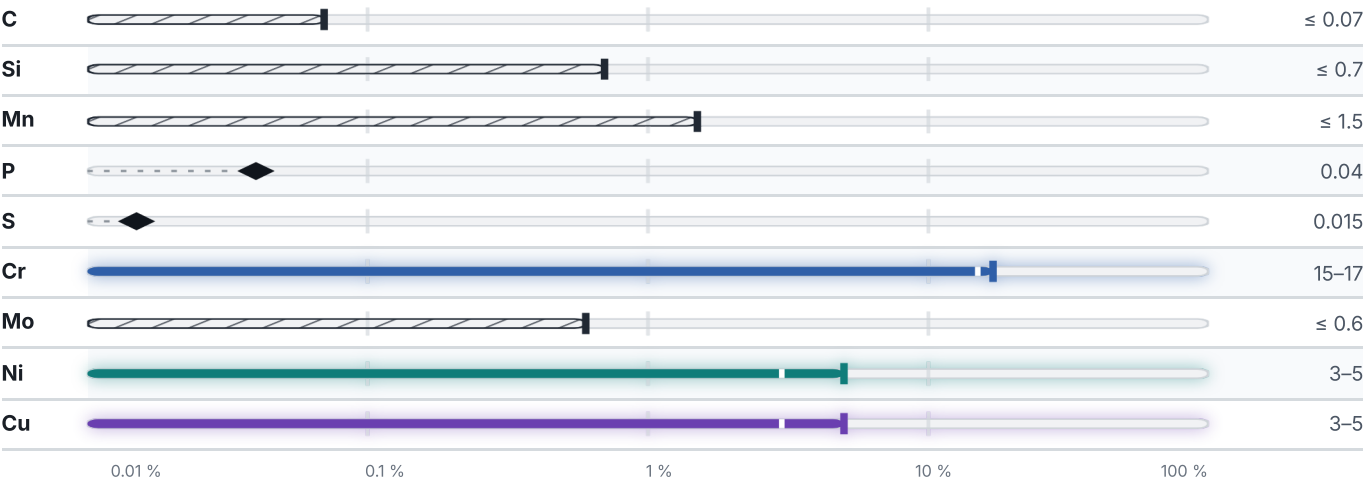
Chemical composition

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/mm ²	RE N/mm ²	A %
Casting Precipitation hardening treatment	850–1240	665–1030	6–10

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.8	g/cm ³

Designations across standards

48 designations · 9 documented as identical

United States22		France8	
S17400	This grade's own name	17-4 DP	afnor
17-4 PH	This grade's own name	174 PH	afnor
630		X17U4	afnor
AISI630	This grade's own name	Z67CNU15.05	afnor
S17400		Z6CNU1704	afnor
17-4 PH		Z7CNU15-05	This grade's own nameafnor
A 484		Z7CNU16-04	afnor
A 564		Z7CNU17-04	This grade's own nameafnor
A 564 630	This grade's own name		
A 564 T 630		United States / Aerospace6	
A 693		5604	ams
A1028		5622	ams
A56		5642	ams
A564 Grade 630		5643	ams
A564 Type 630		5825	ams
A705		5827	ams
A982			
F593		Russia / CIS6	
F594		05Ch16N4D2B	gost
F738		05X16H4Д2Б	gost
F836		07Ch14N4DB	gost
F899		07Ch16N4D4B-Sh	gost
		07X14H4ДБ	gost
		07X16H4Д4Б-Ш	gost
		Japan4	
		SCS 24	This grade's own namejis
		SUS 630	This grade's own namejis
		SUS 630FB	jis
		SUS F 630	jis

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 5642

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