

MATERIAL NUMBER 1.4596 · CLASS 1.4

S10120

Material no. 1.4596

also listed as X1CrNiMoAlTi12-10-2

Chemical composition, mechanical and physical property values, and 2 standard designations from 2 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	2 in 2 regions	12 on file

Chemical composition

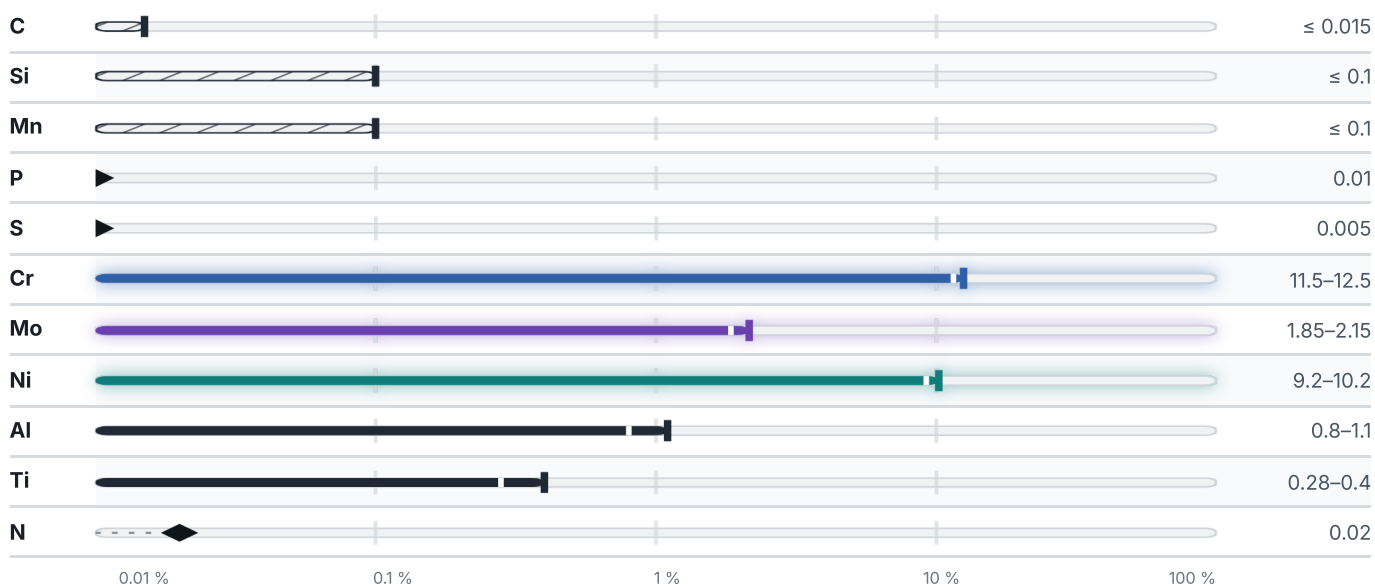
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 74.8 % ● Cr — 12 % ● Ni — 9.7 % ● Mo — 2 % ● Traces & impurities · 1.5 %

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

1 values across 1 conditions

SOLUTION ANNEALED	HB
Solution annealed	363

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

2 designations · 2 documented as identical

Europe	1	United States	1
X1CrNiMoAlTi12-10-2	This grade's own name din-en	S10120	This grade's own name uns

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 S10120

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	1.4596	Aug 20, 2026