SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.3541 · CLASS 1.3

X45Cr13

Material no. 1.3541

Chemical composition, mechanical and physical property values, and 17 standard designations from 8 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	17 in 8 regions	7 on file

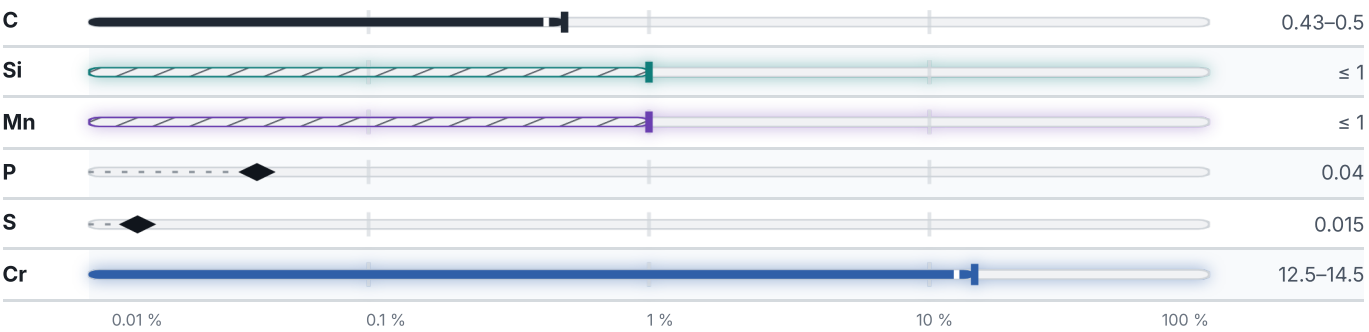
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 84 % · Cr — 13.5 % · Si — 1 % · Mn — 1 % · Traces & impurities · 0.5 %

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

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

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

17 designations · 3 documented as identical

United States — 7

S42000	uns
420	aisi-sae
A276	astm
A314	astm
A484	astm
A580	astm
A756B50 X47Cr14 This grade's own name	astm

United States / Aerospace — 3

5506	ams
5620	ams
5621	ams

Europe — 2

X45Cr13 This grade's own name	din-en
X47Cr14 This grade's own name	din-en

United Kingdom — 1

3S62	bs

France — 1

Z20C13	afnor

Russia / CIS — 1

40Ch13	gost

Czechia — 1

17029	csn

Slovakia — 1

17 029	stn

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 X45Cr13

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

Start an enquiry

DATASHEET ONLINE
View the material page

GRADE SEARCH
Search all grades

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ISSUED
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