

MATERIAL NUMBER 1.4035 · CLASS 1.4

X46CrS13

Material no. 1.4035

also listed as X45CrS13

Chemical composition, mechanical and physical property values, and 9 standard designations from 6 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.7 g/cm ³	9 in 6 regions	7 on file

Chemical composition

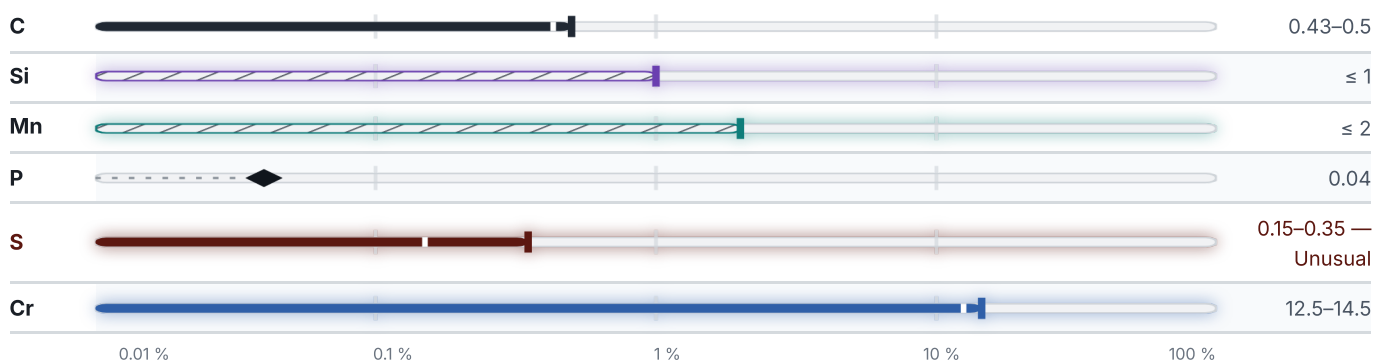
Mass fraction in %

What this alloy is



■ Iron — the balance, never listed by a standard — 82.7 % ■ Cr — 13.5 % ■ Mn — 2 % ■ Si — 1 % ■ Traces & impurities · 0.8 %

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.

Mechanical properties

1 values across 1 conditions

SOFT ANNEALED	HB
Soft annealed	245

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.7	g/cm ³

Designations across standards

9 designations · 2 documented as identical

Europe	2	United States	1
X45CrS13 This grade's own name	din-en	S42080	uns
X46CrS13 This grade's own name	din-en		
Russia / CIS	2	France	1
40Ch13	gost	Z44C14	afnor
40X13	gost	International	1
Poland	2	X40Cr14	iso
4H13	pn		
4H14	pn		

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 X46CrS13

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

MATERIAL NO.

1.4035

ISSUED

Aug 20, 2026