

MATERIAL NUMBER 1.4038 · CLASS 1.4

1.4038

Chemical composition, mechanical and physical property values, and 16 standard designations from 4 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 16 in 4 regions	PROPERTY VALUES 7 on file
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Chemical composition

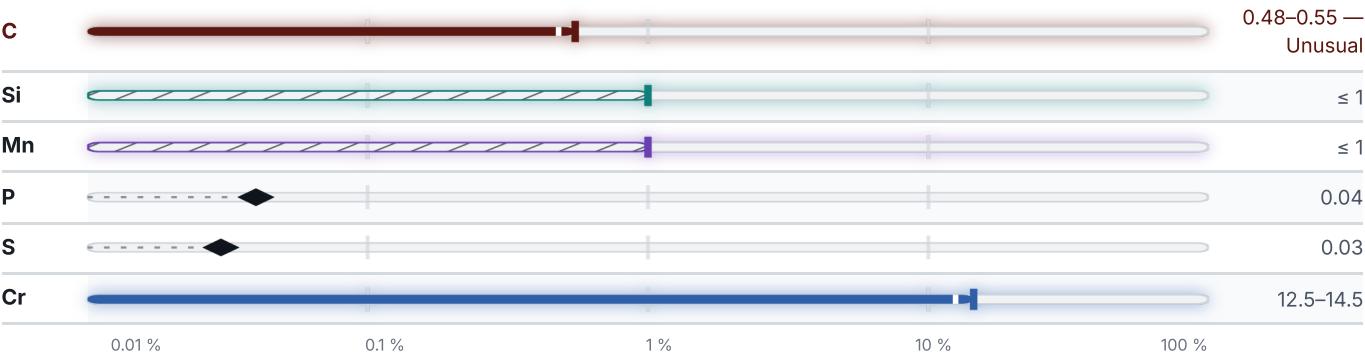
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 83.9 % ● Cr — 13.5 % ● Si — 1 % ● Mn — 1 % ● Traces & impurities · 0.6 %

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/cm ³

Designations across standards

16 designations · 1 documented as identical

United States		12	United States / Aerospace		2
S42000		uns	5506		ams
420		aisi-sae	5621		ams
51420		aisi-sae			
A1049		astm	Europe		1
A176		astm	X52Cr13	This grade's own name	din-en
A182		astm			
A276		astm	Brazil		1
A314		astm	420		abnt
A473		astm			
A580		astm			
F1079		astm			
F2215		astm			

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 1.4038

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	1.4038	Aug 20, 2026