

MATERIAL NUMBER 1.4034 · CLASS 1.4

F.3405-X46Cr13

Material no. 1.4034

also listed as X46Cr13

Chemical composition, mechanical and physical property values, and 46 standard designations from 17 regions.

DENSITY 7.7 g/cm ³	OTHER DESIGNATIONS 46 in 17 regions	PROPERTY VALUES 7 on file
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Chemical composition

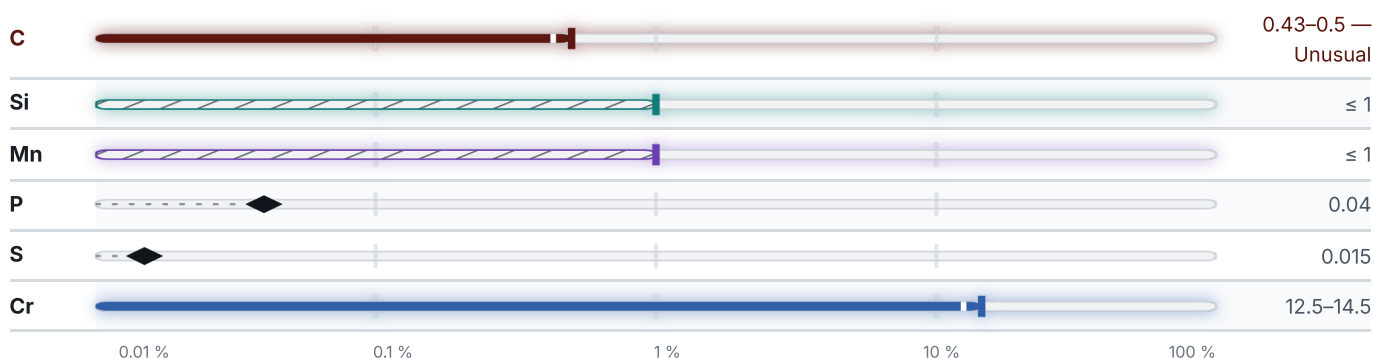
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 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.

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

46 designations · 4 documented as identical

United States	14	Europe	3
S42000	uns	1.4034	din-en
S42080	uns	X40Cr13	din-en
420	aisi-sae	X46Cr13 This grade's own name	din-en
51420	aisi-sae		
S42000	aisi-sae	Spain	2
A1049	astm	F.3405	une
A176	astm	F.3405-X46Cr13	une
A182	astm		
A276	astm	United States / Aerospace	2
A314	astm	5506	ams
A473	astm	5621	ams
A580	astm		
F1079	astm	Poland	2
F2215	astm	4H13	pn
		4H14	pn
France	6	International	1
Z38C13M This grade's own name	afnor	X40Cr14	iso
Z40C13	afnor		
Z40C14	afnor	Japan	1
Z40CM	afnor	SUS420J2	jis
Z40Cr14	afnor		
Z44C14 This grade's own name	afnor	China	1
		4Cr13	gb
United Kingdom	4	Italy	1
420S45	bs	X40Cr14	uni
420S45 EN 56D	bs		
56D	bs	Sweden	1
EN56D	bs	2304	ss
Russia / CIS	4	Czechia	1
40Ch13 This grade's own name	gost	17 029	csn
40KH13	gost		
40X13	gost		
40X13	gost		

Brazil	1	former Yugoslavia	1
420	abnt	Č.4175	jus
Serbia	1		
Č.4175	srps		

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 F.3405-X46Cr13

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	1.4034	Sep 8, 2026