

MATERIAL NUMBER 1.4005 · CLASS 1.4

416S21

Material no. 1.4005

also listed as X12CrS13

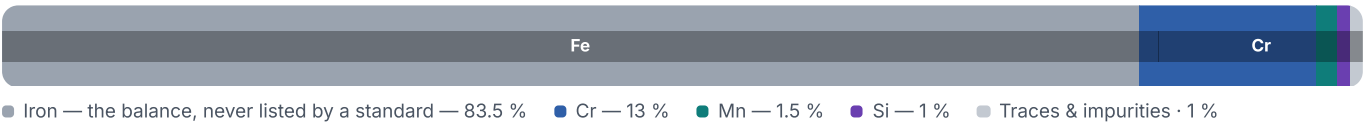
Chemical composition, mechanical and physical property values, and 46 standard designations from 13 regions.

DENSITY 7.7 g/cm ³	OTHER DESIGNATIONS 46 in 13 regions	PROPERTY VALUES 8 on file
---	---	-------------------------------------

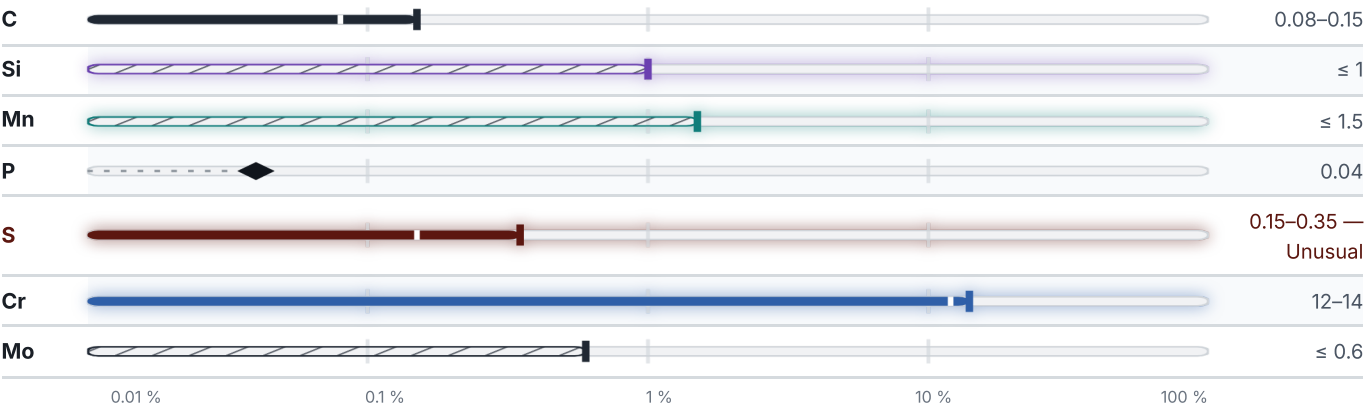
Chemical composition

Mass fraction in %

What this alloy is



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.

Mechanical properties

6 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	Z %	AK J/cm ²
Bars/Rods	540	345	17	45	69
SOFT ANNEALED					HB
Soft annealed					220

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.7	g/cm ³

Designations across standards

46 designations · 4 documented as identical

United States	22	Spain	4
Grade 410	uns	F-3401	une
S41000	uns	F.3411	une
S41600 This grade's own name	uns	F.3411-X12 CrS 13	une
410	aisi-sae	X 10 Cr 13	une
416 This grade's own name	aisi-sae		
51416	aisi-sae	France	3
S41600	aisi-sae	Z11CF13	afnor
A 484	astm	Z12CF13	afnor
A 582	astm	Z12CrS13	afnor
A194	astm		
A314	astm	Russia / CIS	3
A473	astm	12Ch13	gost
A581	astm	12H13	gost
A593	astm	12Kh13	gost
A594	astm		
A895	astm	Europe	2
F1613	astm	1.4005	din-en
F2281	astm	X12CrS13 This grade's own name	din-en
F738	astm		
F836	astm	Sweden	2
F899	astm	2380	ss
Grade 410	astm	SIS 2380 This grade's own name	ss
United Kingdom	4	International	1
410S21	bs	X12Cr13E	iso
416S21	bs		
AMI 4006	bs	United States / Aerospace	1
En 56 AM	bs	5610	ams
		Japan	1
		SUS416	jis

China	1	Poland	1
1Y1Cr13	gb	1H13	pn
Italy	1		
X12CrS13	uni		

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 416S21
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	1.4005	Aug 20, 2026