

MATERIAL NUMBER 1.4305 · CLASS 1.4

416L

Material no. 1.4305

also listed as X 10 CrNiS 18 9

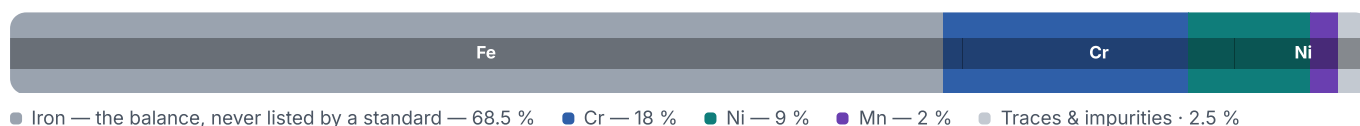
Chemical composition, mechanical and physical property values, and 77 standard designations from 16 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.9 g/cm ³	77 in 16 regions	10 on file

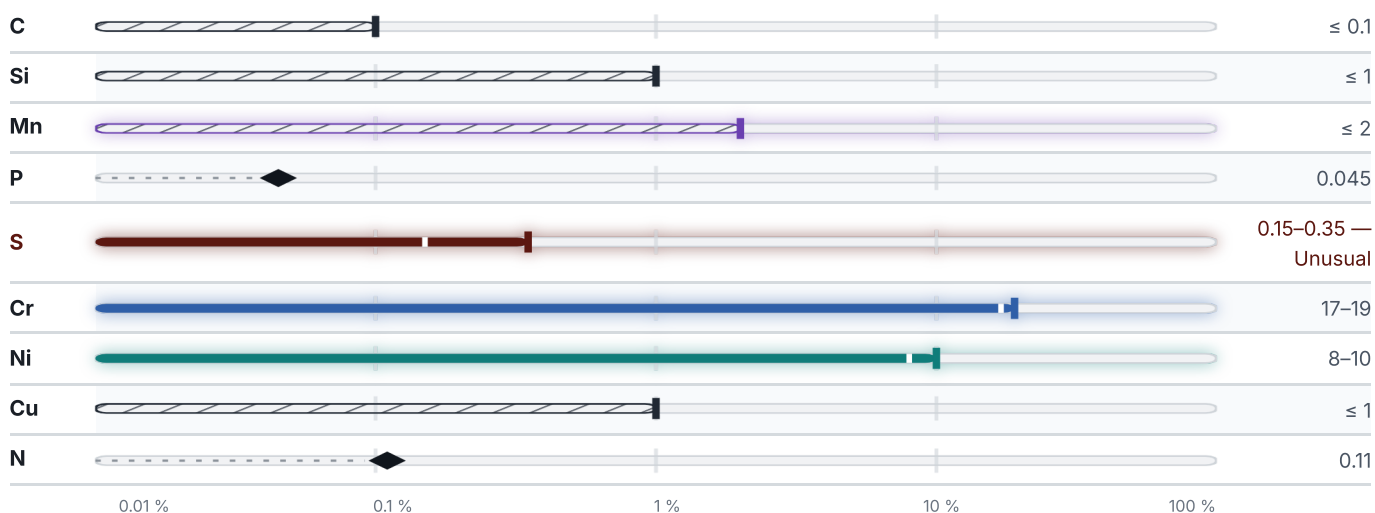
Chemical composition

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: Mo.

Mechanical properties

11 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	Z %	HB	HRB	HV
Plate/Sheet Hot-rolled	520	205	35	–	–	–	–
Bars/Rods	520	205	40	50	–	–	–
Hot-rolled	–	–	–	–	187	90	200
SOFT ANNEALED							HB
Soft annealed							230

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.9	g/cm ³

Designations across standards

77 designations · 7 documented as identical

United States		32	Spain		7
S30300	This grade's own name	uns	18-09		une
S30400		uns	F-3507		une
S30403		uns	F.310.C		une
S30453		uns	F.3504		une
S30500		uns	F.3508		une
S41603		uns	F.3508-X10CrNiS		une
303	This grade's own name	aisi-sae	X10CrNi18-9		une
30303		aisi-sae			
304		aisi-sae			
304L		aisi-sae			
304LN		aisi-sae			
305		aisi-sae			
416L		aisi-sae			
S30300		aisi-sae			
A194		astm			
A314		astm			
A320		astm			
A320 Grade B8F		astm			
A473		astm			
A484		astm			
A581		astm			
A582		astm			
A895		astm			
F593		astm			
F594		astm			
F738		astm			
F836		astm			
F837		astm			
F880		astm			
F899		astm			
TP304		astm			
TP304L		astm			
United Kingdom		7	Europe		5
301 S 21		bs	1.4305		din-en
303S21		bs	X 10 CrNiS 18 9	This grade's own name	din-en
303S21 EN 58M		bs	X10CrNiS189	This grade's own name	din-en
303S22	This grade's own name	bs	X12CrNiS188		din-en
303S31		bs	X8CrNiS18-9	This grade's own name	din-en
58M		bs			
EN58M		bs			
			United States / Aerospace		4
			5635		ams
			5638		ams
			5640		ams
			5641		ams
			Russia / CIS		4
			12Ch18N10E		gost
			12Ch18N9		gost
			12Kh18N9		gost
			2Ch18N10E		gost
			Japan		3
			SUS 301		jis
			SUS 302		jis
			SUS303		jis
			Poland		3
			00H18N10		pn
			0H18N9		pn
			1H18N9		pn
			France		2
			Z10CNF18.09		afnor
			Z8CNF18-09		afnor
			China		2
			1Cr18Ni9MoZr		gb
			Y1Cr18Ni9		gb
			Sweden		2
			2346		ss
			SIS 2346	This grade's own name	ss

Czechia	2	Slovakia	1
17 243 PH	csn	17 243	stn
17243	csn		
Italy	1	Serbia	1
X10CrNiS18-09	uni	Č.4590	srps
		former Yugoslavia	1
		Č.4590	jus

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 416L

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	1.4305	Sep 8, 2026