

MATERIAL NUMBER 1.4305 · CLASS 1.4

303S31

Material no. 1.4305

also listed as X 10 CrNiS 18 9

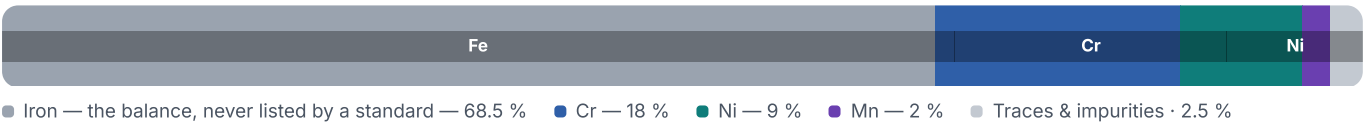
Chemical composition, mechanical and physical property values, and 77 standard designations from 16 regions.

DENSITY 7.9 g/cm³	OTHER DESIGNATIONS 77 in 16 regions	PROPERTY VALUES 10 on file
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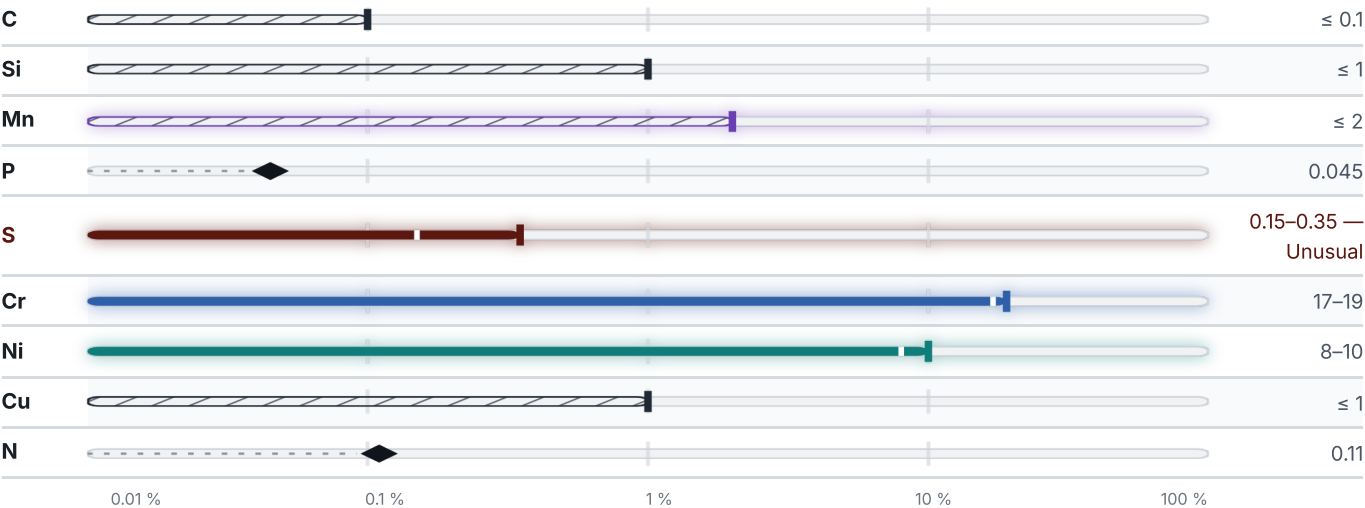
Chemical composition

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	1.4305		din-en
304LN		aisi-sae	X 10 CrNiS 18 9	This grade's own name	din-en
305		aisi-sae	X10CrNiS189	This grade's own name	din-en
416L		aisi-sae	X12CrNiS188		din-en
S30300		aisi-sae	X8CrNiS18-9	This grade's own name	din-en
A194		astm			
A314		astm	United States / Aerospace		4
A320		astm	5635		ams
A320 Grade B8F		astm	5638		ams
A473		astm	5640		ams
A484		astm	5641		ams
A581		astm			
A582		astm	Russia / CIS		4
A895		astm	12Ch18N10E		gost
F593		astm	12Ch18N9		gost
F594		astm	12Kh18N9		gost
F738		astm	2Ch18N10E		gost
F836		astm			
F837		astm	Japan		3
F880		astm	SUS 301		jis
F899		astm	SUS 302		jis
TP304		astm	SUS303		jis
TP304L		astm			
United Kingdom		7	Poland		3
301 S 21		bs	00H18N10		pn
303S21		bs	0H18N9		pn
303S21 EN 58M		bs	1H18N9		pn
303S22	This grade's own name	bs	France		2
303S31		bs	Z10CNF18.09		afnor
58M		bs	Z8CNF18-09		afnor
EN58M		bs			
			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 303S31

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