

MATERIAL NUMBER 1.4462 · CLASS 1.4

S31803

Material no. 1.4462

also listed as X2CrNiMoN22-5-3

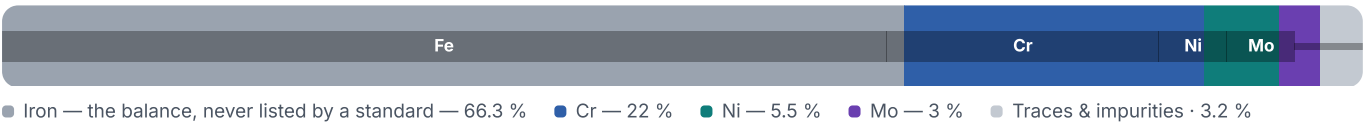
Chemical composition, mechanical and physical property values, and 48 standard designations from 12 regions.

DENSITY 7.8 g/cm³	OTHER DESIGNATIONS 48 in 12 regions	PROPERTY VALUES 10 on file
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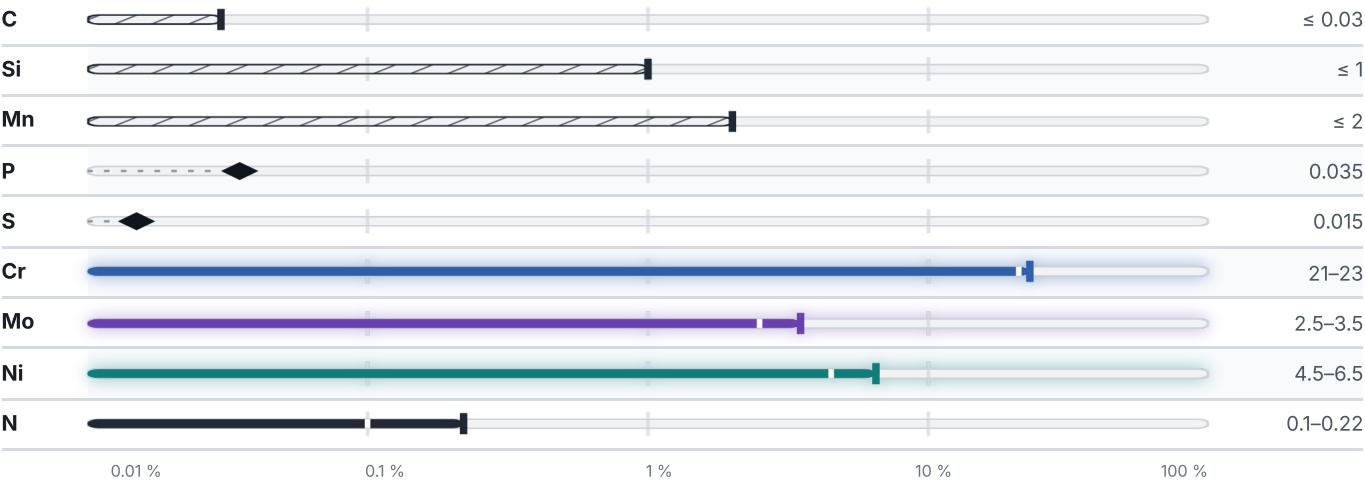
Chemical composition

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

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

8 values across 3 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	HB	HRC	HV
Plate/Sheet Hot-rolled	620	450	18	–	–	–
Hot-rolled	–	–	–	302	32	320
SOFT ANNEALED						HB
Soft annealed						270
SOLUTION ANNEALED						HB
Solution annealed						290

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.8	g/cm ³

Designations across standards

48 designations · 5 documented as identical

United States		30	Japan		3
2205		uns	SUS 329J3LTB		jis
A 182 F60		uns	SUS 329J3LTP		jis
DUPLEX 2205		uns	SUS329J3L		jis
F51		uns			
S31803	This grade's own name	uns	Europe		2
S32205	This grade's own name	uns	1.4462		din-en
S39209	This grade's own name	uns	X2CrNiMoN22-5-3	This grade's own name	din-en
2205		aisi-sae			
A182		aisi-sae	Russia / CIS		2
S31803		aisi-sae	02Ch22N5M3		gost
S32205		aisi-sae	02X22H5AM3		gost
S39209		aisi-sae			
UNS 31803		aisi-sae	United Kingdom		1
UNS S31803		aisi-sae	318S13		bs
A 182 F 51	This grade's own name	astm			
A 182 Grade F51		astm	International		1
A1022		astm	CrNiMo22-5-3		iso
A182		astm			
A240		astm	Sweden		1
A276		astm	2377		ss
A276 F51		astm			
A479		astm	Czechia		1
A479 F51		astm	17381		csn
A789		astm			
A790		astm	Poland		1
A815		astm	00H22N24M4TCu		pn
A923		astm			
A928		astm	Slovakia		1
A949		astm	17 381		stn
A988		astm			
			Australia / New Zealand		1
France		4	S31803		as-nzs
Z2CND22.05Az		afnor			
Z3CND22-05Az		afnor			
Z3CND25-06-03Az		afnor			
Z5CNDU21.08		afnor			

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 S31803

Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

DATASHEET ONLINE

[View the material page](#)

GRADE SEARCH

[Search all grades](#)

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ISSUED

Aug 20, 2026