

MATERIAL NUMBER 1.4546 · CLASS 1.4

S.525

Material no. 1.4546

also listed as X5CrNiNb18-10

Chemical composition, mechanical and physical property values, and 70 standard designations from 4 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	70 in 4 regions	8 on file

Chemical composition

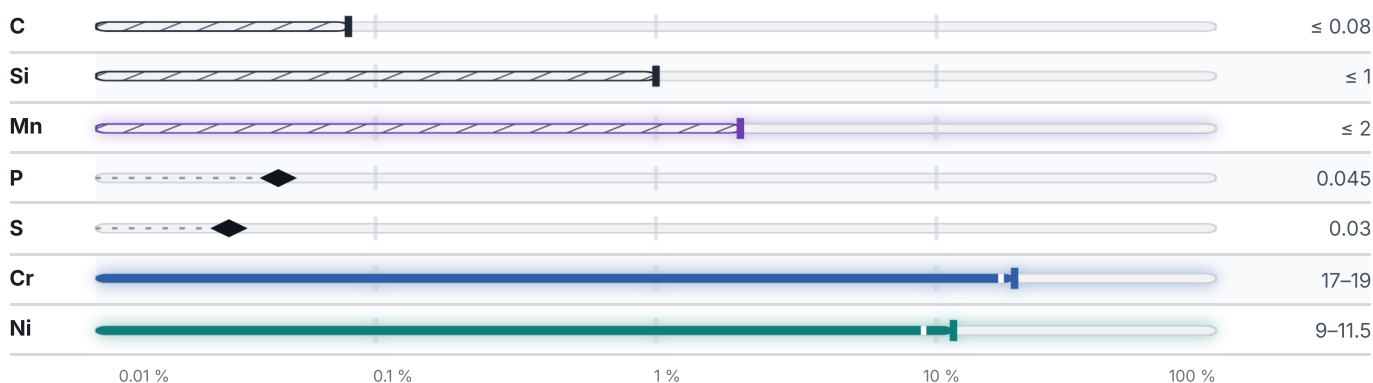
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 68.6 % ● Cr — 18 % ● Ni — 10.3 % ● Mn — 2 % ● Traces & impurities · 1.2 %

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.

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

70 designations · 7 documented as identical

United States		47	A965	astm
S34700	This grade's own name	uns	F2281	astm
S34800	This grade's own name	uns	F593	astm
S34809	This grade's own name	uns	F594	astm
30347		aisi-sae	F738	astm
30348		aisi-sae	F836	astm
347	This grade's own name	aisi-sae	United States / Aerospace	
348	This grade's own name	aisi-sae		
348H	This grade's own name	aisi-sae	5362	ams
S34800		aisi-sae	5512	ams
A1012		astm	5556	ams
A1049		astm	5558	ams
A182		astm	5571	ams
A193		astm	5575	ams
A194		astm	5646	ams
A213		astm	5654	ams
A240		astm	5674	ams
A249		astm	5790	ams
A264		astm	5897	ams
A269		astm	7490	ams
A276		astm	United Kingdom	
A312		astm		
A313		astm	2 S.130	bs
A314		astm	2 S.143	bs
A320		astm	3 S.144	bs
A336		astm	347S17	bs
A358		astm	3S.145	bs
A376		astm	S.525	bs
A403		astm	S143	bs
A409		astm	S144	bs
A430		astm	S145	bs
A473		astm	S527	bs
A479		astm	Europe	
A511		astm		
A554		astm	X5CrNiNb18-10	This grade's own name
A580		astm		din-en
A632		astm		
A774		astm		
A778		astm		
A813		astm		
A814		astm		
A943		astm		

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 S.525
Quotation, availability, mill certificate or a technical question — directly on the material page.

Start an enquiry

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GRADE SEARCH
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MATERIAL NO.
1.4546

ISSUED
Aug 20, 2026