

MATERIAL NUMBER 1.4568 · CLASS 1.4

316S111 –

Material no. 1.4568

also listed as X7CrNiAl17-7

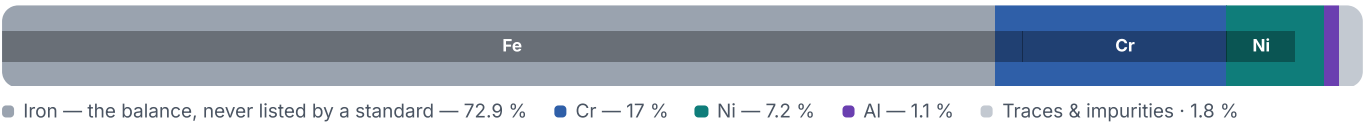
Chemical composition, mechanical and physical property values, and 42 standard designations from 11 regions.

DENSITY 7.8 g/cm³	OTHER DESIGNATIONS 42 in 11 regions	PROPERTY VALUES 9 on file
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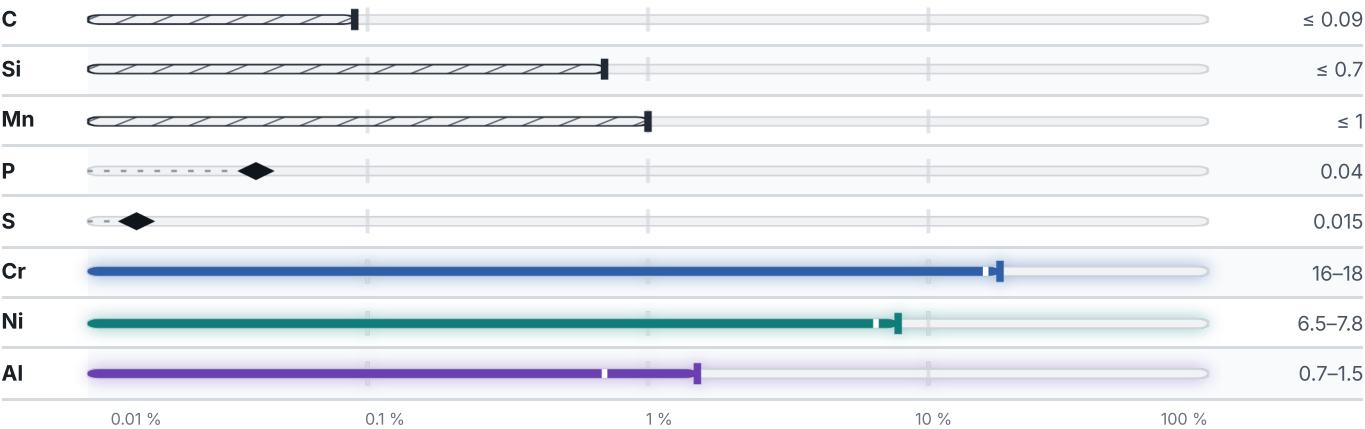
Chemical composition

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

5 values across 2 conditions

SOLUTION ANNEALED				HB
Solution annealed				255
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	KCU kJ/m ²
Sheet trick, GOST 7350-77	830	735	12	490

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.8	g/cm ³

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
Ageing	Temperature not stated	—

Designations across standards

42 designations · 4 documented as identical

United States	15	Russia / CIS	8
AMS 5529/5528	uns	09Ch17N7Ju1	gost
AMS 5644	uns	09KH17N7YU	gost
AMS 5678	uns	09KH17N7YU1	gost
S17700 This grade's own name	uns	09X17H7IO	gost
17-7PH	aisi-sae	09X17H7IO	gost
631 This grade's own name	aisi-sae	09X17H7IO1	gost
J2171994 This grade's own name	aisi-sae	0X17H7IO	gost
S17700	aisi-sae	0X17H7IO1	gost
17-7PH	astm		
A 313	astm	United States / Aerospace	6
A 564	astm	5528	ams
A 564 Type 631	astm	5529	ams
A 579	astm	5568	ams
A 693	astm	5644	ams
A 705	astm	5678	ams
		5824	ams
		France	3
		Z8CNA17-07	afnor
		Z8CNA17-7	afnor
		Z9CNA17-07	afnor

Europe	2	International	1
1.4568	din-en	X7CrNiAl17-7	iso
X7CrNiAl17-7	This grade's own name din-en		
United Kingdom	2	China	1
301S81	bs	0Cr17Ni7Al	gb
316S111 –	bs		
Japan	2	Italy	1
SUS 631-CSP	jis	X2CrNiMo1712	uni
SUS631	jis		
		Sweden	1
		2388	ss

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 316S111 –

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

MATERIAL NO.

1.4568

ISSUED

Aug 20, 2026