

MATERIAL NUMBER 1.4044 · CLASS 1.4

S80

Material no. 1.4044

also listed as X15CrNi17-3

Chemical composition, mechanical and physical property values, and 33 standard designations from 7 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 33 in 7 regions	PROPERTY VALUES 8 on file
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Chemical composition

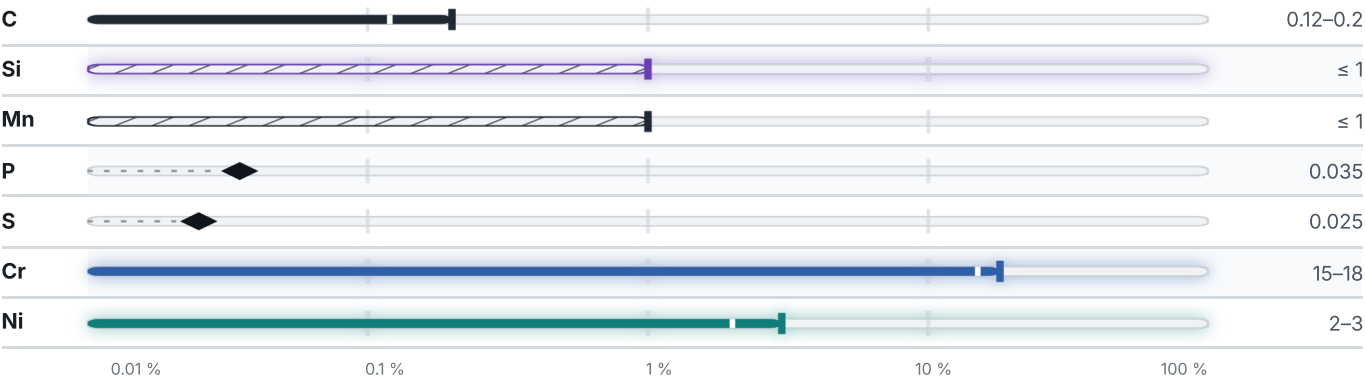
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 78.8 % ● Cr — 16.5 % ● Ni — 2.5 % ● Si — 1 % ● 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.

Mechanical properties

10 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Casting	950	750	8	20	250

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Casting	850	650	8	20	350

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

33 designations · 3 documented as identical

United States		19	Russia / CIS		6
S43100	This grade's own name	uns	14KH17N2		gost
431	This grade's own name	aisi-sae	14Kh17N2L		gost
51431		aisi-sae	14X17H2		gost
A176		astm	1X17H2		gost
A276		astm	ЭИ268		gost
A314		astm	ЭИ268Л		gost
A473		astm	United Kingdom		3
A478		astm			
A479		astm	431S29		bs
A484		astm	7S80		bs
A493		astm	S80		bs
A580		astm	United States / Aerospace		2
A593		astm			
A594		astm	5628		ams
F1613		astm	5682		ams
F2281		astm	Europe		1
F738		astm			
F836		astm	X15CrNi17-3	This grade's own name	din-en
F899		astm	France		1
			Z15CN16-02		afnor
			Japan		1
			SUS431		jis

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 S80

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

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ISSUED

Aug 20, 2026