

MATERIAL NUMBER 1.3505 · CLASS 1.3

100C6

Material no. 1.3505

also listed as 100Cr6

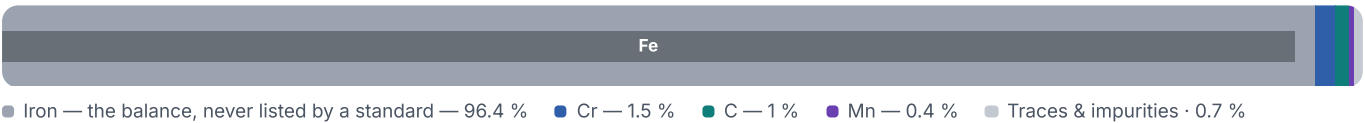
Chemical composition, mechanical and physical property values, and 61 standard designations from 21 regions.

DENSITY 7.8 g/cm³	OTHER DESIGNATIONS 61 in 21 regions	PROPERTY VALUES 17 on file
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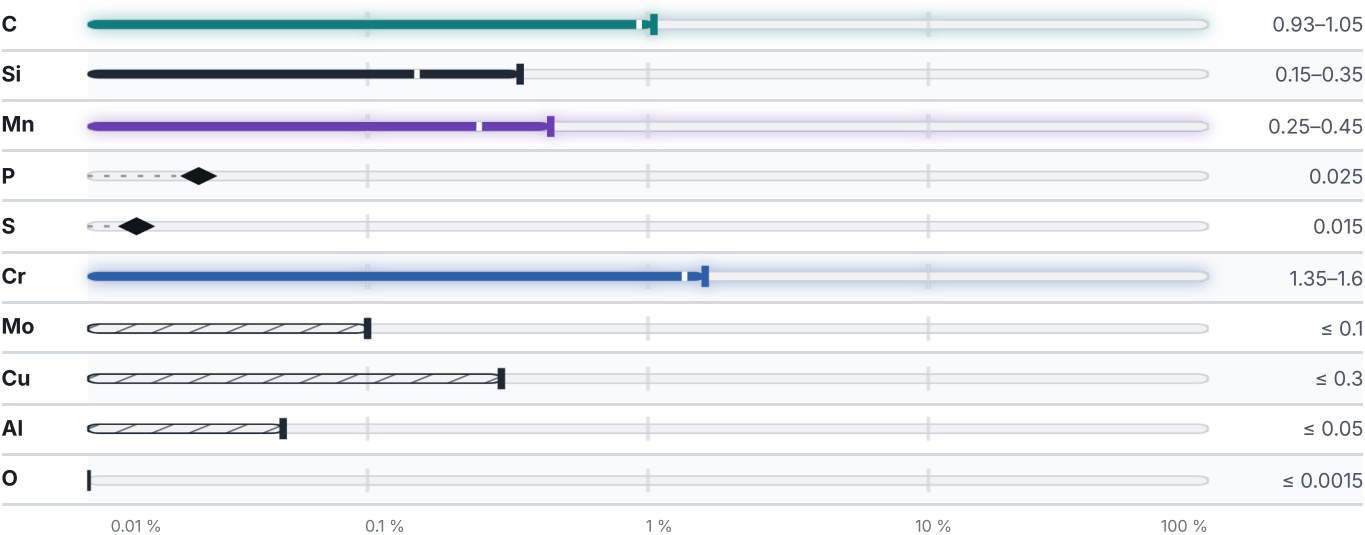
Chemical composition

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: Ni.

Mechanical properties

6 values across 2 conditions

QUENCHING 850°C, OIL, DRAWING 600°C, AIR	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 25	620	370	15	40	490
CONDITION · DIMENSION					HB
(annealing) , GOST 4543-71					229

Physical properties

7 values

PROPERTY	VALUE	UNIT
Density	7.8	g/cm ³
Transformation point Ac1	715	°C
Transformation point Ac3	735	°C
Transformation point Ar3	710	°C
Transformation point Ar1	635	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	
Temper brittleness	weakly predisposed	

Heat treatment

5 regimes

STEP	TEMPERATURE	MEDIUM
Quenching	Temperature not stated	—
Quenching	830–860 °C	Oil
Annealing	Temperature not stated	—
Spheroidize annealing	Temperature not stated	—
Annealing	Temperature not stated	—

Designations across standards

61 designations · 4 documented as identical

United States	13	Poland	3
AMS 6440	uns	LH15	pn
G52985	uns	ŁH15	pn
G52986	uns	NC4	pn
G52986 / G52950	uns		
J19965 This grade's own name	uns	Europe	2
K23080	uns	1.3505	din-en
S-22141	uns	100Cr6 This grade's own name	din-en
52100	aisi-sae		
ASTM 52100	aisi-sae	International	2
E52100	aisi-sae	100Cr6	iso
G52986	aisi-sae	3505	iso
J19965	aisi-sae		
A646	astm	United States / Aerospace	2
Russia / CIS	7	6440	ams
Šch15	gost	6444	ams
SchCh15 This grade's own name	gost		
ShCh15	gost	Japan	2
SHKH15	gost	SUJ2	jis
ШХ15	gost	SUJ4	jis
ШХ15-В	gost		
ШХ15-Ш	gost	Czechia	2
		14100	csn
		14109	csn
United Kingdom	5		
2S135	bs	Romania	2
534A99	bs	RUL1	stas
535A99 This grade's own name	bs	RUL1v	stas
EN31	bs		
S135	bs	South Korea	2
		STB2	ks
Spain	5	STB4	ks
100	une		
100Cr6	une	Italy	1
Cr6	une	100Cr6	uni
F.131	une		
F.1310	une	Sweden	1
		2258	ss
China	4		
45G	gb	Slovakia	1
Cr2	gb	14 109	stn
GCr15	gb		
Gr15	gb	Latin America	1
		52100	copant
France	3		
100C6	afnor	Hungary	1
100Cr6	afnor	GO3	msz
100Cr6RR	afnor		

Australia / New Zealand	1	Bulgaria	1
5210	as-nzs	SchCh15	bds

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 100C6

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	1.3505	Sep 8, 2026