

MATERIAL NUMBER 1.1191 · CLASS 1.1

GS-Ck 45

Material no. 1.1191

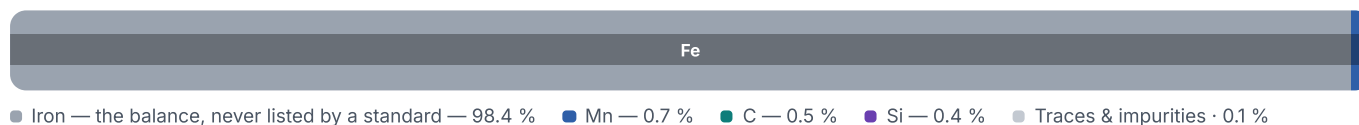
Chemical composition, mechanical and physical property values, and 32 standard designations from 18 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	32 in 18 regions	6 on file

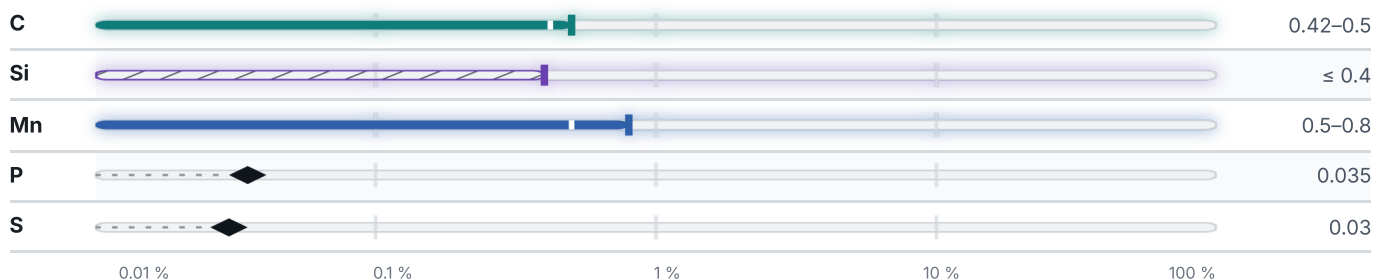
Chemical composition

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, Cr, Mo.

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

32 designations · 1 documented as identical

Europe	4	Japan	1
1.1191	din-en	S45C	jis
C45E	din-en		
Ck45	din-en	Russia / CIS	1
GS-Ck 45 This grade's own name	din-en	45	gost
France	4	Italy	1
XC42	afnor	C45	uni
XC42H1	afnor		
XC45	afnor	Sweden	1
XC48H1	afnor	1672	ss
United States	3	Czechia	1
G10450	uns	12050	csn
1042	aisi-sae		
1045	aisi-sae	Latin America	1
United Kingdom	3	1045	copant
060A47	bs	Slovakia	1
080M46	bs	12 050	stn
CFS8	bs	Poland	1
Spain	3	45	pn
C45K	une	Hungary	1
F.1140-C45k	une	C 45	msz
F1140	une		
China	3	Australia / New Zealand	1
45	gb	K1045	as-nzs
45H	gb		
Ck45	gb	Finland	1
International	1	C45	sfs
C45E4	iso		

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 GS-Ck 45

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

[Start an enquiry](#)

DATASHEET ONLINE

View the material page

GRADE SEARCH

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ISSUED

Aug 20, 2026