

MATERIAL NUMBER 1.1730 · CLASS 1.1

C45U

Material no. 1.1730

Chemical composition, mechanical and physical property values, and 19 standard designations from 13 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	19 in 13 regions	6 on file

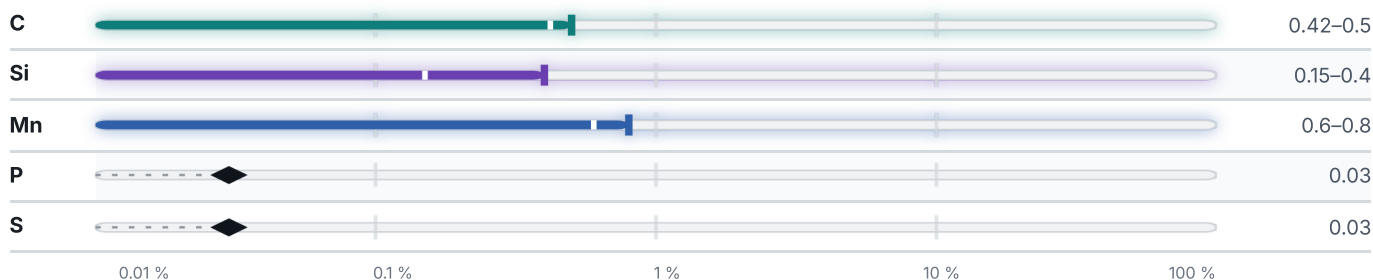
Chemical composition

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.

Mechanical properties

1 values across 1 conditions

SOFT ANNEALED	HB
Soft annealed	207

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

19 designations · 4 documented as identical

United States	4	France	1
G10450 This grade's own name	uns	XC48 / C45E	afnor
1045 This grade's own name	aisi-sae	Spain	1
W1045 przybliż	aisi-sae	F.114	une
A830	astm	Japan	1
Europe	2	S45C przybliż.	jis
C45U This grade's own name	din-en	China	1
C45W This grade's own name	din-en	45	gb
Czechia	2	Russia / CIS	1
19065	csn	45	gost
19083	csn	Italy	1
Poland	2	C45	uni
N7E	pn	Sweden	1
stal narzędziowa węglowa	pn	1672	ss
United Kingdom	1	Slovakia	1
080M46	bs	19 083	stn

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 C45U

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	1.1730	Aug 20, 2026