

MATERIAL NUMBER 1.0586 · CLASS 1.0

C50D

Material no. 1.0586

Chemical composition, mechanical and physical property values, and 8 standard designations from 7 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	8 in 7 regions	11 on file

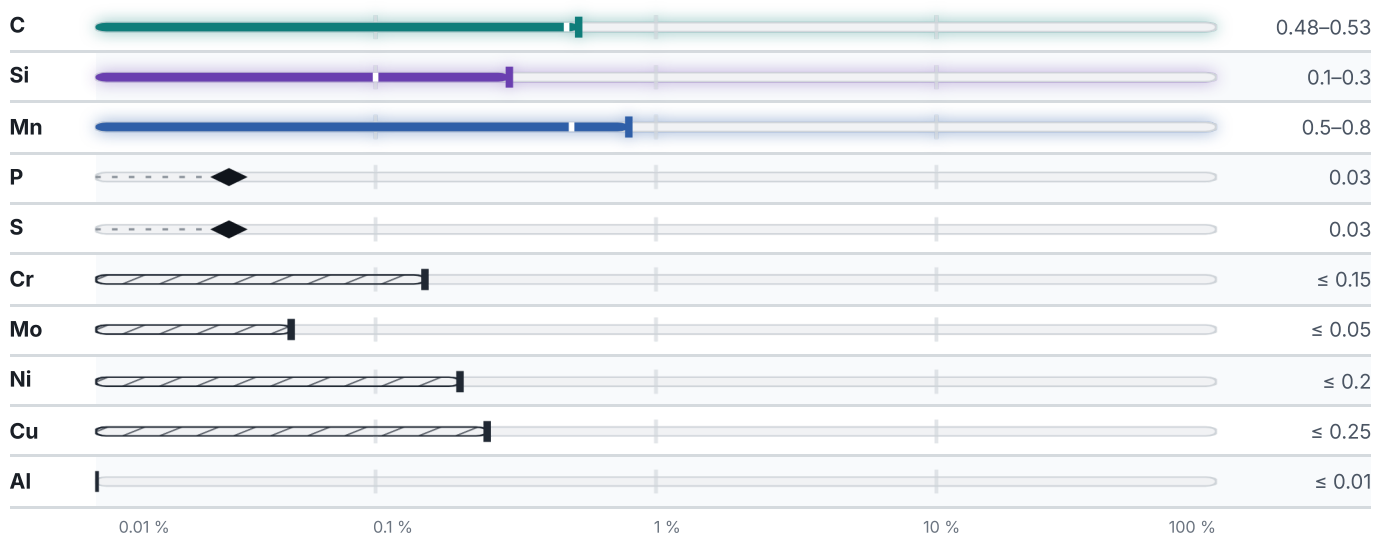
Chemical composition

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

computed from composition · °C

PREDICTED AE3	PREDICTED AE1	PREDICTED ACM	PREDICTED BS
758 °C	719 °C	639 °C	568 °C

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

8 designations · 3 documented as identical

United States	2	International	1
G10500 This grade's own name	uns	C50 C50E4 C50M2	iso
1050 This grade's own name	aisi-sae	Japan	1
Europe	1	S50C	jis
C50D This grade's own name	din-en	Russia / CIS	1
United Kingdom	1	50	gost
C50 C50E C50R	bs	Italy	1
		C50E	uni

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 C50D

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

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ISSUED

Aug 20, 2026