

MATERIAL NUMBER 1.8505 · CLASS 1.8

1.8505

Chemical composition, mechanical and physical property values, and 1 standard designations from 1 regions.

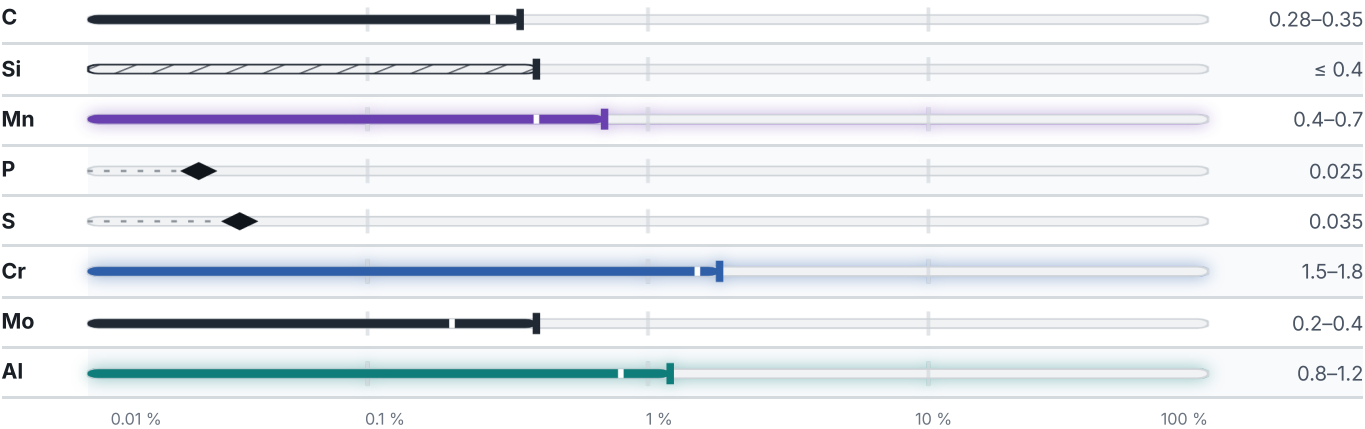
DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 1 in 1 regions	PROPERTY VALUES 9 on file
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Chemical composition

Mass fraction in %



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

9 values across 2 conditions

QUENCHED AND TEMPERED	RM N/mm ²	A %
16 – 40	1030–1230	10
40 – 100	980–1180	10
100 – 160	930–1130	12
160 – 250	880–1080	12
SOFT ANNEALED		HB
Soft annealed		248

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Heat treatment

3 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—
Soft annealing	Temperature not stated	—
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—

Designations across standards

1 designations · 1 documented as identical

Europe	1
32CrAlMo7-10	This grade's own name din-en

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 1.8505
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