

12CrMoV

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

OTHER DESIGNATIONS

1 in 1 regions

PROPERTY VALUES

10 on file

Chemical composition

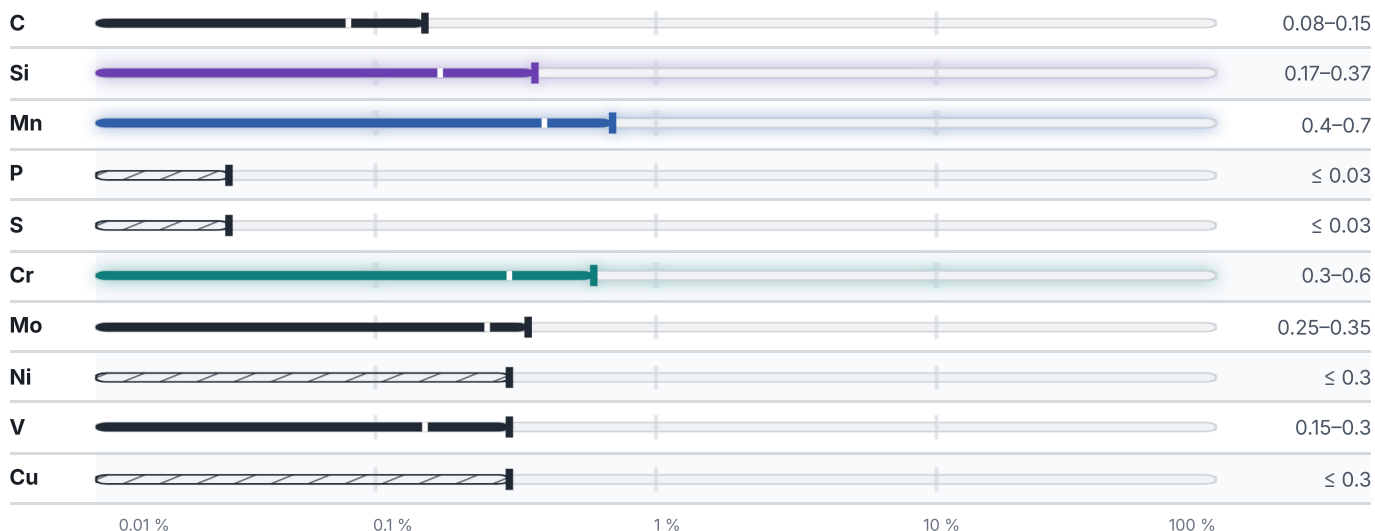
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.4 % ● Mn — 0.6 % ● Cr — 0.4 % ● Mo — 0.3 % ● Traces & impurities · 1.3 %

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

828 °C

PREDICTED AE1

731 °C

PREDICTED ACM

402 °C

PREDICTED BS

565 °C

Mechanical properties

4 values across 1 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	HB
30 – 30	≥ 440	≥ 225	≥ 22	≤ 241

Physical properties

0 values

CONDITION · DIMENSION	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)
20	210	–	45.64
100	–	10.8	–
200	–	11.8	–
400	–	12.8	–
600	–	13.6	–
700	–	13.8	–

Heat treatment

2 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—
source joins the operations with + / procedural order		
Normalizing	980–1000 °C	—
Tempering	740–760 °C	Air

Designations across standards

1 designations · 1 documented as identical

China	1
12CrMoV This grade's own name	gb

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 12CrMoV

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

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MATERIAL NO.

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ISSUED

Aug 15, 2026