

12Cr1MoVR

Chemical composition, mechanical and physical property values, and 2 standard designations from 2 regions.

OTHER DESIGNATIONS	PROPERTY VALUES
2 in 2 regions	10 on file

Chemical composition

Mass fraction in %

What this alloy is



Iron — the balance, never listed by a standard — 96.9 % Cr — 1.1 % Mn — 0.6 % Mo — 0.3 % Traces & impurities · 1.2 %

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 746 °C	PREDICTED ACM 423 °C	PREDICTED BS 544 °C
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Mechanical properties

6 values across 1 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %
6 – 60	440–590	≥ 245	≥ 19
60 – 100	430–580	≥ 235	≥ 19

Heat treatment

1 regimes

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

Designations across standards

2 designations · 1 documented as identical

China	1	Russia / CIS	1
12Cr1MoVR This grade's own name	gb	12X1MΦ	gost

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 12Cr1MoVR

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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MATERIAL NO.

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ISSUED

Aug 15, 2026