

18Cr2Ni4W

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

OTHER DESIGNATIONS	PROPERTY VALUES
1 in 1 regions	10 on file

Chemical composition

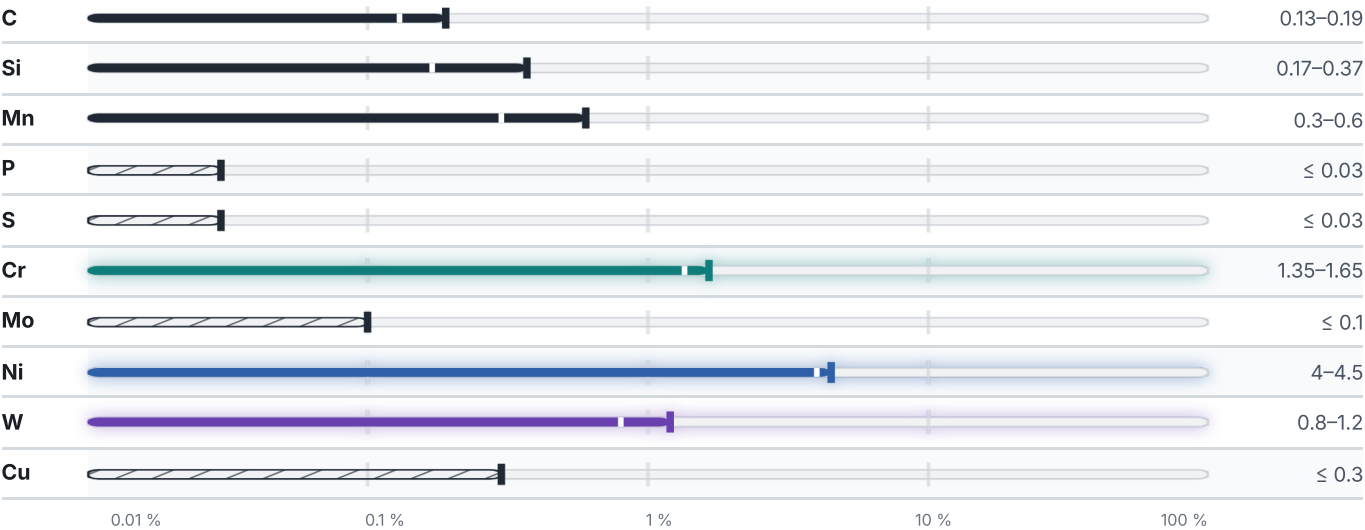
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 91.9 % ● Ni — 4.3 % ● Cr — 1.5 % ● W — 1 % ● 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

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

4 values across 1 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	HB
15 – 15	≥ 1180	≥ 835	≥ 10	≤ 269

Physical properties

0 values

CONDITION · DIMENSION	E GPa	CP J/(kg·K)	G GPa
20	204	—	86.36
70	—	486	—
100	230	—	—
200	—	—	20–200
300	168	—	—
500	142	—	—

Heat treatment

3 regimes

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

Designations across standards

1 designations · 1 documented as identical

China	1
18Cr2Ni4W 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 18Cr2Ni4W

[Start an enquiry](#)

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

DATASHEET ONLINE

View the material page

GRADE SEARCH

Search all grades

MATERIAL NO.

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ISSUED

Aug 15, 2026