

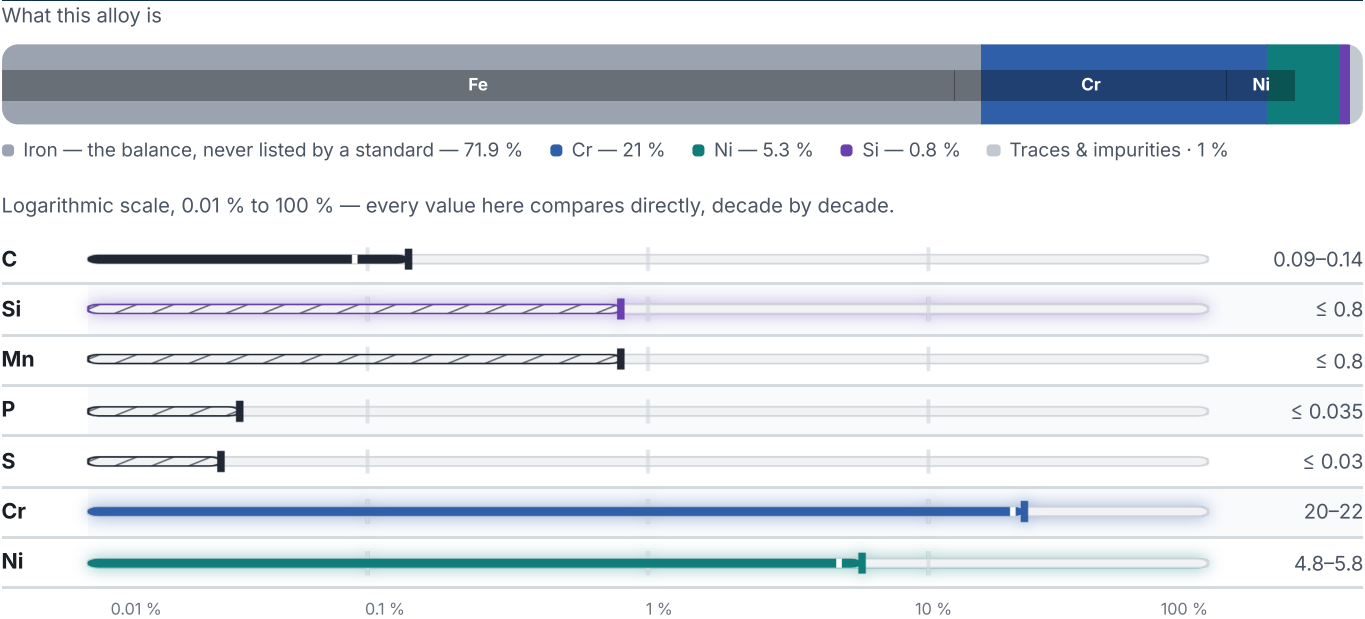
12Cr21Ni5Ti

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

ELASTIC MODULUS 187 GPa	OTHER DESIGNATIONS 1 in 1 regions	PROPERTY VALUES 11 on file
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Chemical composition

Mass fraction in %



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: Mo.

Physical properties

4 values

CONDITION · DIMENSION	E GPa	ALPHA 10 ^{^-6} /K	LAMBDA W/(m·K)
20	187	—	—

CONDITION · DIMENSION	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)
100	174	10	17.6
200	172	13.7	—
300	167	16.8	—
400	157	16.7	—
500	148	17.4	23

PROPERTY	VALUE	UNIT
Elastic modulus	187	GPa
Thermal expansion coefficient	10	10 ⁻⁶ /K
Thermal conductivity	16.6	W/(m·K)
Electrical resistivity	790	nΩ·m

Heat treatment

2 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Solution annealing	950–1050 °C	Water
Tempering	Temperature not stated	—
Ageing	550 °C	—
source joins the operations with (or)		
Quenching	Temperature not stated	—
Solution annealing	950–1050 °C	Air

Designations across standards

1 designations · 1 documented as identical

China	1
12Cr21Ni5Ti 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 12Cr21Ni5Ti

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