

022Cr19Ni5Mo3Si2N

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

ELASTIC MODULUS

196 GPa

OTHER DESIGNATIONS

1 in 1 regions

PROPERTY VALUES

14 on file

Chemical composition

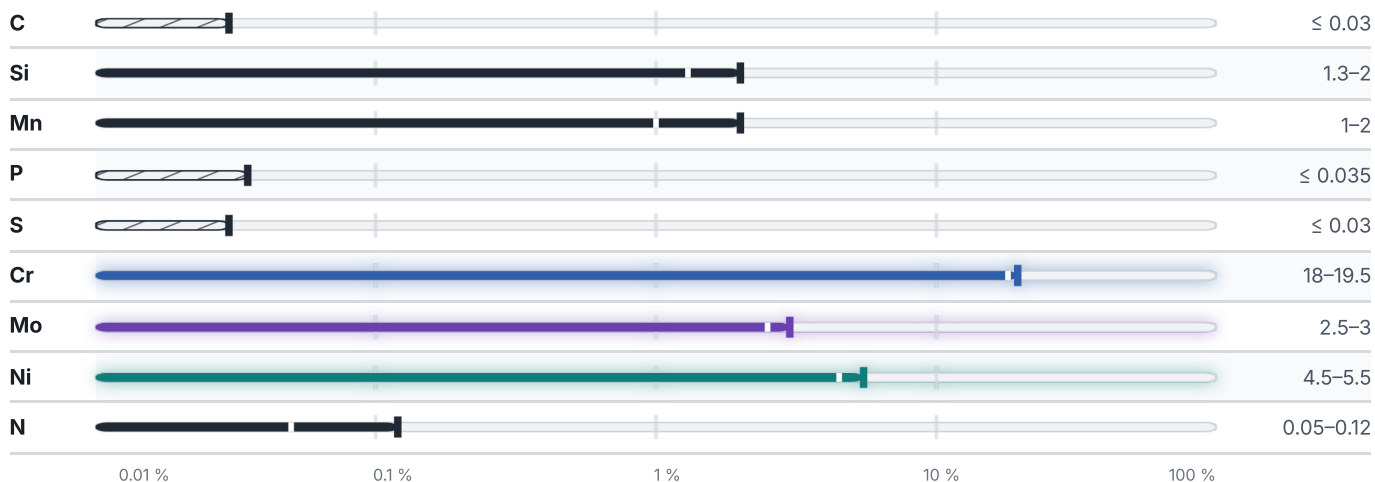
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 70.2 % ● Cr — 18.8 % ● Ni — 5 % ● Mo — 2.8 % ● Traces & impurities · 3.3 %

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.

Physical properties

5 values

CONDITION · DIMENSION	E GPa	ALPHA 10^-6/K	LAMBDA W/(m·K)	CP J/(kg·K)
20	200	—	—	—
100	194	13	20	—
200	186	13.5	—	—
300	180	14	24	460

PROPERTY	VALUE	UNIT
Elastic modulus	196	GPa
Thermal expansion coefficient	12.2	10^-6/K
Thermal conductivity	13	W/(m·K)
Specific heat capacity	470	J/(kg·K)
Electrical resistivity	800	nΩ·m

Heat treatment

3 regimes

STEP	TEMPERATURE	MEDIUM
Solution annealing	Temperature not stated	—
Solution annealing	Temperature not stated	—
Solution annealing	Temperature not stated	—

Designations across standards

1 designations · 1 documented as identical

China	1
022Cr19Ni5Mo3Si2N 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 022Cr19Ni5Mo3Si2N

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

[Start an enquiry](#)

DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	—	Aug 15, 2026