SteelEquivalents.com

Material datasheet
As of Aug 15, 2026

06Cr18Ni12Mo2Cu2

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

ELASTIC MODULUS	OTHER DESIGNATIONS	PROPERTY VALUES
186 GPa	**1** in 1 regions	**14** on file

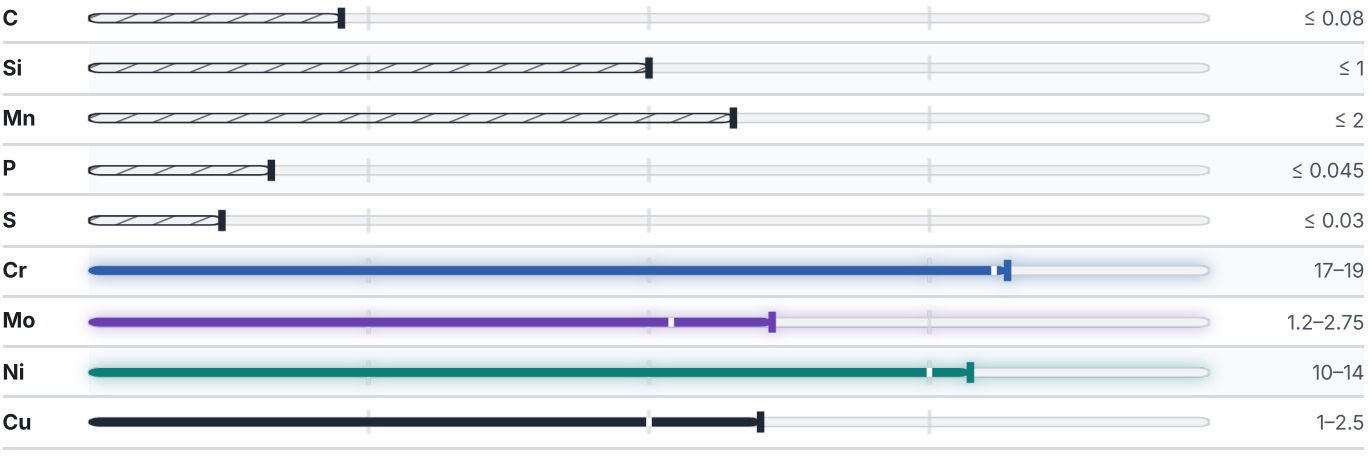
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 63.1 % · Cr — 18 % · Ni — 12 % · Mn — 2 % · Traces & impurities · 4.9 %

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	190	–	–	–
100	185	16	16.1	–
200	179	16.5	–	–
300	174	17	–	–
400	166	17.5	–	–
500	158	18	21.7	500

PROPERTY	VALUE	UNIT
Elastic modulus	186	GPa
Thermal expansion coefficient	16.6	10^-6/K
Thermal conductivity	15	W/(m·K)
Specific heat capacity	500	J/(kg·K)
Electrical resistivity	740	nΩ·m

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
Solution annealing	Temperature not stated	—

Designations across standards

1 designations · 1 documented as identical

China	1
06Cr18Ni12Mo2Cu2 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 06Cr18Ni12Mo2Cu2

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