

20Mn

also listed as P245GH

Chemical composition, mechanical and physical property values, and 4 standard designations from 4 regions.

OTHER DESIGNATIONS	PROPERTY VALUES
4 in 4 regions	10 on file

Chemical composition

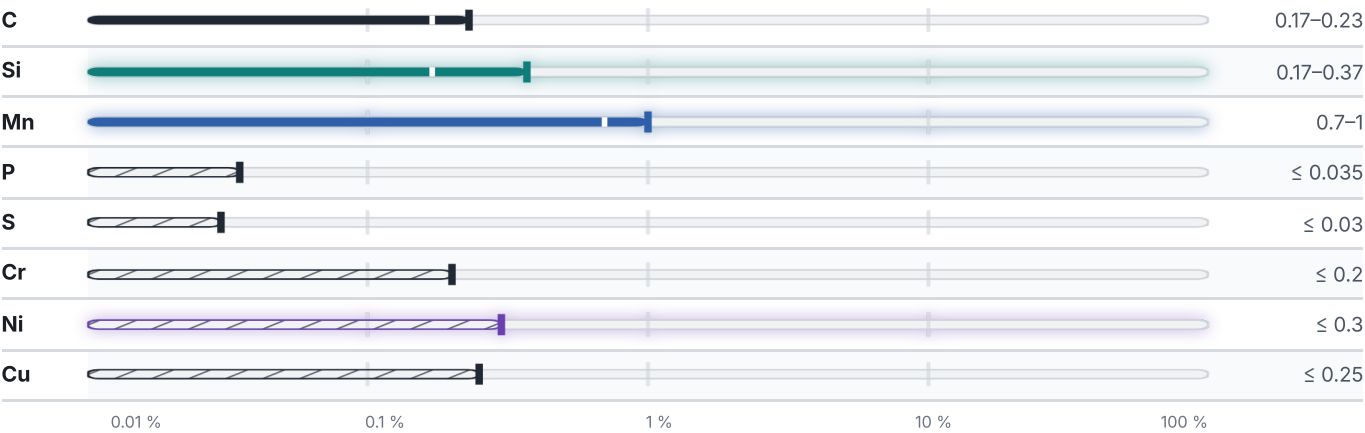
Mass fraction in %

What this alloy is



■ Iron — the balance, never listed by a standard — 97.9 % ■ Mn — 0.9 % ■ Ni — 0.3 % ■ Si — 0.3 % ■ Traces & impurities · 0.7 %

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

Not enough recorded composition to predict a transformation temperature for this grade — missing: Mo.

Physical properties

0 values

CONDITION · DIMENSION	E GPa	ALPHA 10^-6/K	LAMBDA W/(m·K)	CP J/(kg·K)
20	210	–	53.59	469
100	–	12.3	51.08	–
200	–	–	43.96	–
300	185	13.2	–	–
400	175	–	–	–
500	–	–	34.75	–
600	–	14.9	–	–

Heat treatment

2 regimes

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

Designations across standards

4 designations · 1 documented as identical

Europe	1	France	1
P245GH	din-en	A42AP	afnor
United States	1	China	1
A105	astm	20Mn 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 20Mn

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