

MATERIAL NUMBER 1.4438 · CLASS 1.4

317L

Material no. 1.4438

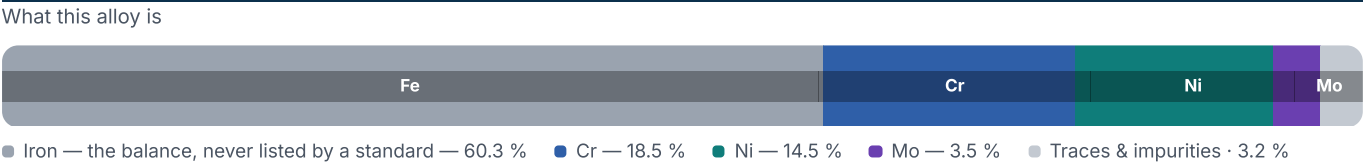
also listed as X 2 CrNiMo 18 16 4

Chemical composition, mechanical and physical property values, and 49 standard designations from 12 regions.

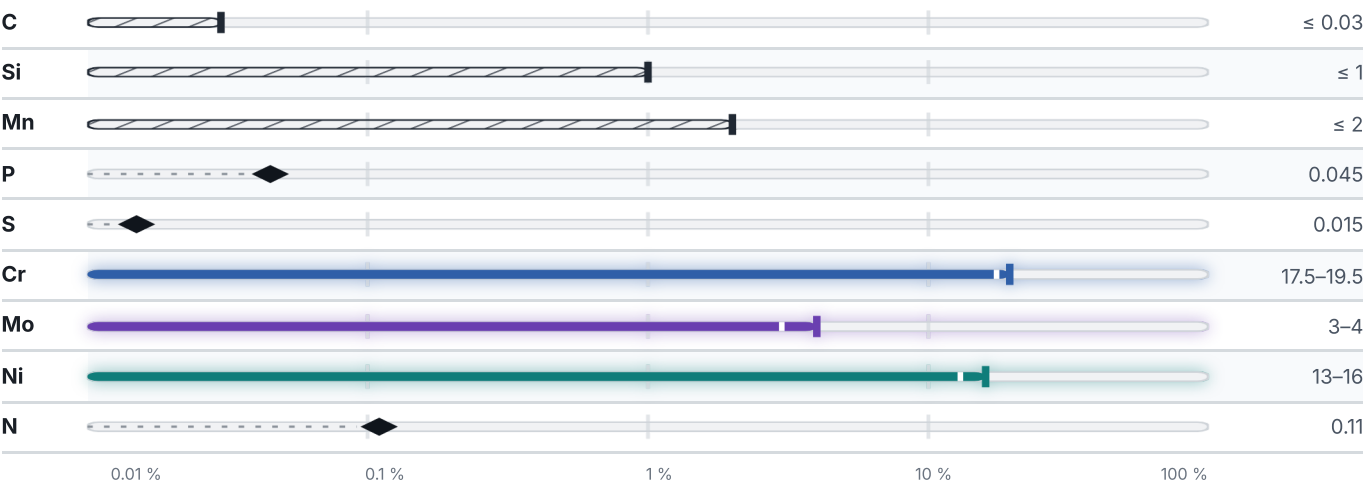
DENSITY 8 g/cm ³	ELASTIC MODULUS 200 GPa	OTHER DESIGNATIONS 49 in 12 regions	PROPERTY VALUES 15 on file
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Chemical composition

Mass fraction in %



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

8 values across 3 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	HB	HRB	HV
Plate/Sheet Hot-rolled	480	175	40	–	–	–
Hot-rolled	–	–	–	187	90	200
SOFT ANNEALED						HB
Soft annealed						215
SOLUTION ANNEALED						HB
Solution annealed						200

Physical properties

6 values

PROPERTY	VALUE	UNIT
Density	8	g/cm ³
Elastic modulus	200	GPa
Thermal expansion coefficient	16.5	10 ⁻⁶ /K
Thermal conductivity	15	W/(m·K)
Specific heat capacity	500	J/(kg·K)
Electrical resistivity	790	nΩ·m

Heat treatment

3 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Solution annealing	Temperature not stated	—
Quenching	Temperature not stated	—
Annealing	Temperature not stated	—
Solution annealing	Temperature not stated	—

49 designations · 5 documented as identical

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 317L

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

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ISSUED

Aug 20, 2026