

MATERIAL NUMBER 1.8946 · CLASS 1.8

1.8946

Chemical composition, mechanical and physical property values, and 7 standard designations from 4 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 7 in 4 regions	PROPERTY VALUES 9 on file
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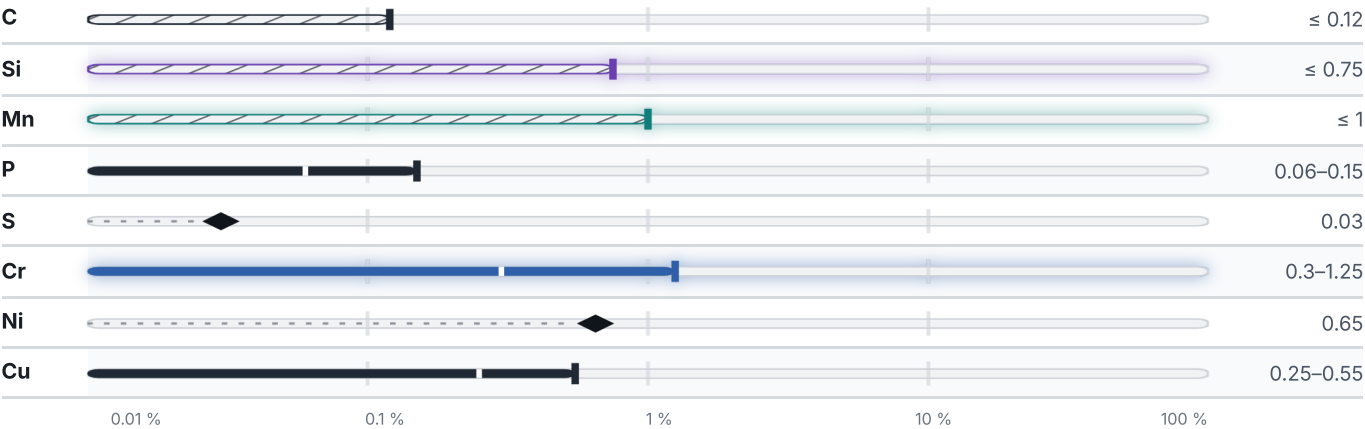
Chemical composition

Mass fraction in %

What this alloy is



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.

Mechanical properties

8 values across 1 conditions

CONDITION · DIMENSION	REH N/mm ²	RM N/mm ²	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So
1.5 – 2	–	–	16	–
2 – 2.5	–	–	17	–
2.5 – 3	–	–	18	–
≤ 3	–	510–680	–	–
3 – 100	–	470–630	–	–
3 – 40	–	–	–	22
≤ 16	355	–	–	–
16 – 40	345	–	–	–

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

7 designations · 2 documented as identical

United States	3	France	1
K02601	uns	E36WA4	afnor
K11510 This grade's own name	uns		
A242Type1	aisi-sae	Italy	1
		Fe510D1K1	uni
Europe	2		
Fe510D1KI	din-en		
S355J2WP This grade's own name	din-en		

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 1.8946

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

Start an enquiry

DATASHEET ONLINE

View the material page

GRADE SEARCH

Search all grades

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ISSUED

Aug 20, 2026