SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.8823 · CLASS 1.8

A572Gr.C

Material no. 1.8823

also listed as S355M

Chemical composition, mechanical and physical property values, and 13 standard designations from 6 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	13 in 6 regions	15 on file

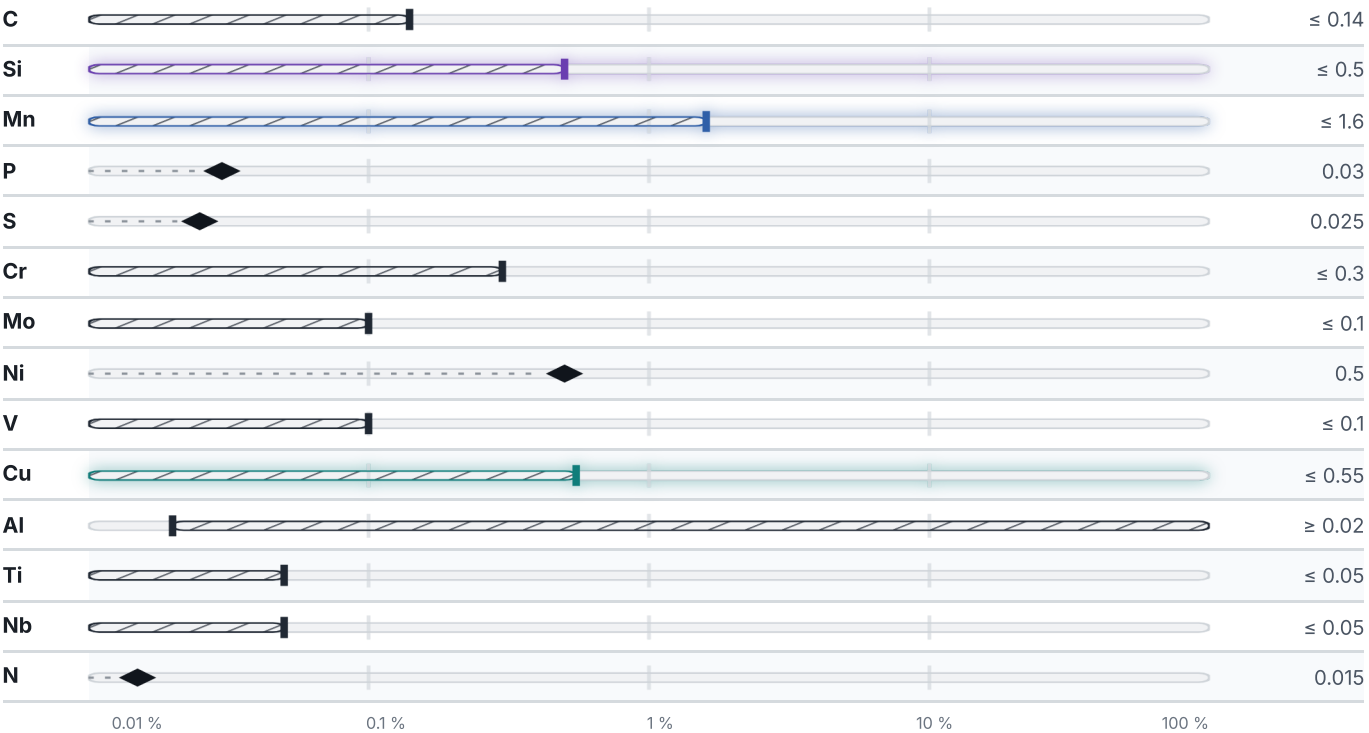
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 96 % · Mn — 1.6 % · Cu — 0.6 % · Si — 0.5 % · Traces & impurities · 1.3 %

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

computed from composition · °C

PREDICTED AE3	PREDICTED AE1	PREDICTED ACM	PREDICTED BS
820 °C	711 °C	386 °C	551 °C

Mechanical properties

11 values across 1 conditions

CONDITION · DIMENSION	REH N/mm²	RM N/mm²
≤ 16	355	–
16 – 40	345	–
≤ 40	–	470–630
40 – 63	335	450–610
63 – 80	325	440–600
80 – 100	325	440–600
100 – 120	320	430–590

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

13 designations · 2 documented as identical

Europe 5

A913Gr.50	din-en
FeE355KGTM	din-en
S355M This grade's own name	din-en
StE 355 TM This grade's own name	din-en
StE355	din-en

United States 2

A572Gr.C	aisi-sae
A913Gr.50	aisi-sae

France 2

E355	afnor
E355R	afnor

Italy 2

FeE355KG	uni
FeE355KGTM	uni

United Kingdom 1

50D	bs

Sweden 1

2134-01	ss

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 A572Gr.C

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	1.8823	Aug 20, 2026