

MATERIAL NUMBER 1.8827 · CLASS 1.8

S460M

Material no. 1.8827

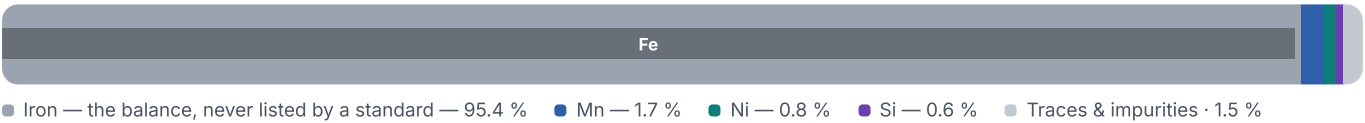
Chemical composition, mechanical and physical property values, and 12 standard designations from 6 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 12 in 6 regions	PROPERTY VALUES 15 on file
--	--	--------------------------------------

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

computed from composition · °C

PREDICTED AE3 814 °C	PREDICTED AE1 708 °C	PREDICTED ACM 405 °C	PREDICTED BS 538 °C
-------------------------	-------------------------	-------------------------	------------------------

Mechanical properties

11 values across 1 conditions

CONDITION · DIMENSION	REH N/mm²	RM N/mm²
≤ 16	460	–
16 – 40	440	–
≤ 40	–	540–720
40 – 63	430	530–710
63 – 80	410	510–690
80 – 100	400	500–680
100 – 120	385	490–660

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

12 designations · 1 documented as identical

Europe5	Italy2
A913Gr.65din-en	FeE460KGuni
FeE460KGTMdin-en	FeE460KGTMuni
S460MThis grade's own namedin-en	
StE 460 TMdin-en	United Kingdom1
StE460din-en	55Cbs
United States2	France1
A572Gr.65aisi-sae	E460Rafnor
A913Gr.65aisi-sae	
	Japan1
	SM570jis

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 S460M

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](#)

MATERIAL NO.

1.8827

ISSUED

Aug 20, 2026