

MATERIAL NUMBER 1.0461 · CLASS 1.0

SM41C

Material no. 1.0461

also listed as S255N

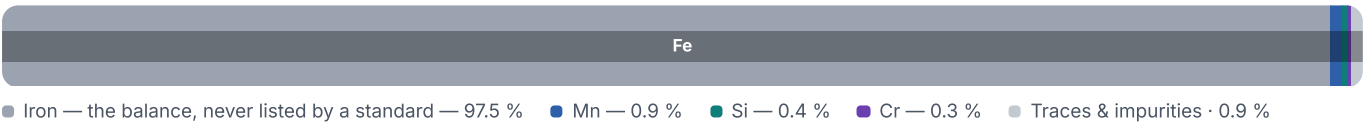
Chemical composition, mechanical and physical property values, and 18 standard designations from 5 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 18 in 5 regions	PROPERTY VALUES 14 on file
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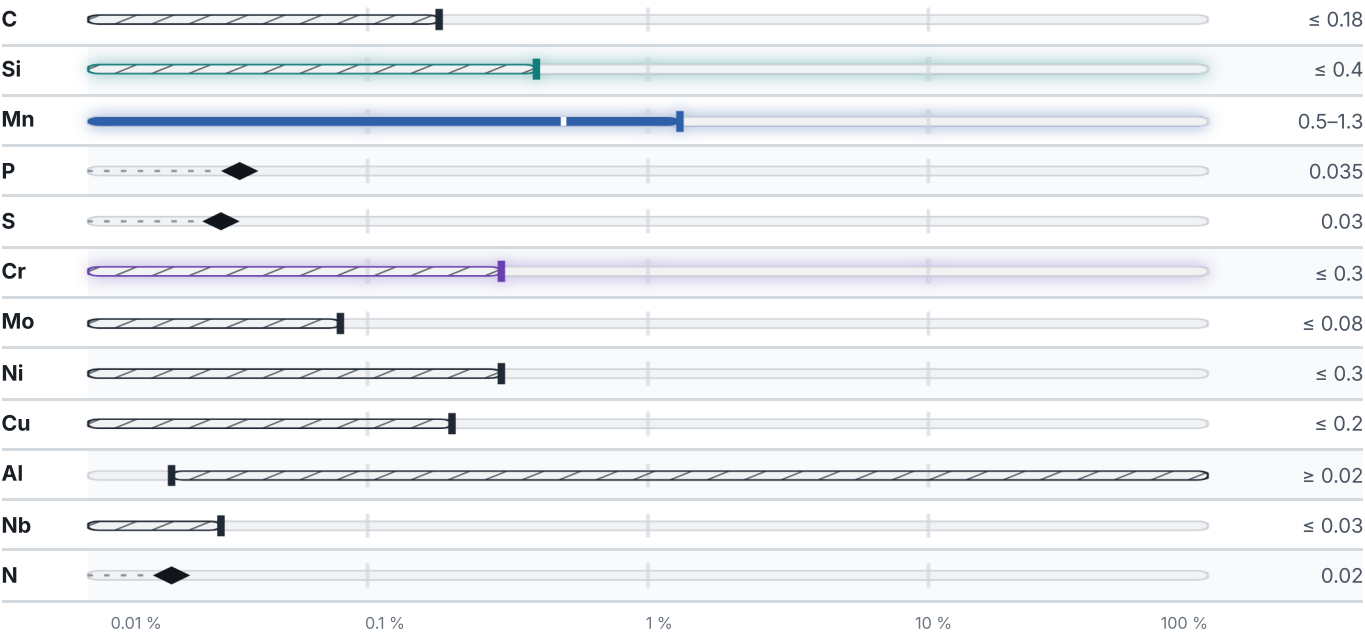
Chemical composition

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

computed from composition · °C

PREDICTED AE3 816 °C	PREDICTED AE1 716 °C	PREDICTED ACM 418 °C	PREDICTED BS 563 °C
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Mechanical properties

6 values across 1 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %
Rolled stock, GOST 535-2005	390–570	245	24
Sheet trick, GOST 14637-89	390–570	245–255	23–24

Physical properties

2 values

CONDITION · DIMENSION	RHO g/cm ³
20	7.85

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	

Designations across standards

18 designations · 4 documented as identical

United States6		Japan4	
K01800	This grade's own nameuns	SM400B	jis
K02202	This grade's own nameuns	SM400C	jis
GradeB	aisi-sae	SM41B	jis
K02101	aisi-sae	SM41C	jis
K02102	aisi-sae		
K02301	aisi-sae	Europe2	
International4		S255N	This grade's own namedin-en
E235-C	iso	StE 255	This grade's own namedin-en
E235-D	iso	Russia / CIS2	
Fe360-C	iso	St3Gsp	gost
Fe360-D	iso	Cr3Гcn	gost

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 SM41C

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

[Start an enquiry](#)

DATASHEET ONLINE

[View the material page](#)

GRADE SEARCH

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ISSUED

Aug 20, 2026