

MATERIAL NUMBER 1.5026 · CLASS 1.5

EN45

Material no. 1.5026

also listed as 55Si7

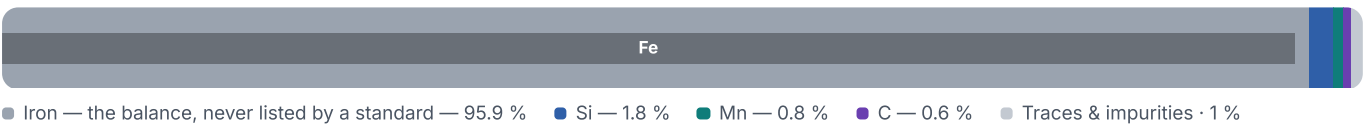
Chemical composition, mechanical and physical property values, and 43 standard designations from 20 regions.

DENSITY 7.44 g/cm ³	OTHER DESIGNATIONS 43 in 20 regions	PROPERTY VALUES 16 on file
--	---	--------------------------------------

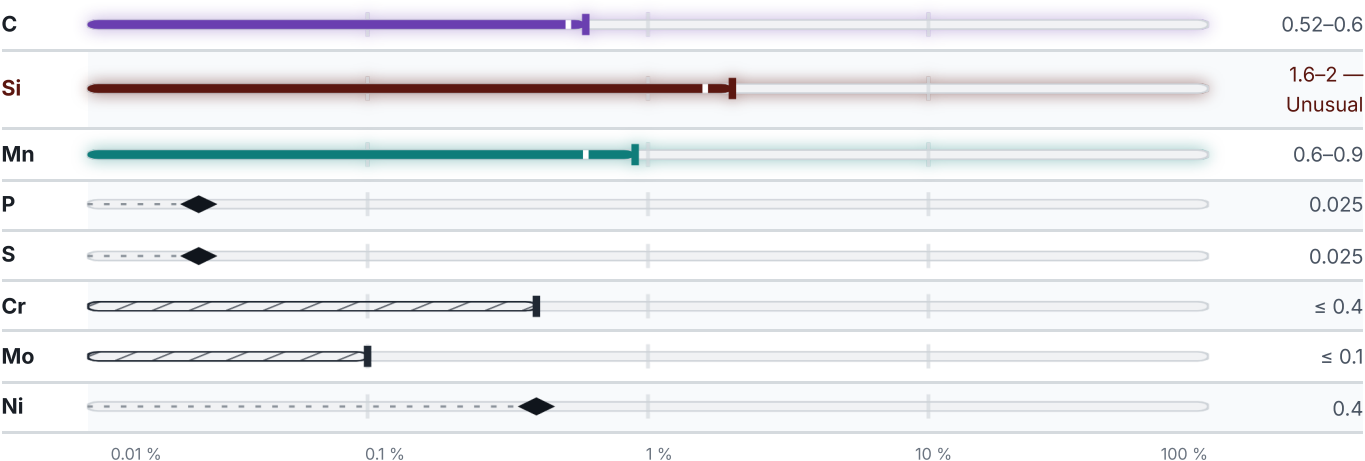
Chemical composition

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 815 °C	PREDICTED AE1 758 °C	PREDICTED ACM 713 °C	PREDICTED BS 547 °C
--------------------------------	--------------------------------	--------------------------------	-------------------------------

Mechanical properties

19 values across 9 conditions

CONDITION · DIMENSION					HB
(without heat treatment) , GOST 14959					285
(heat treatment) , Rolled stock GOST 14959-79					241
SOFT ANNEALED					A80 %
0.3 – 3					12
QUENCHED AND TEMPERED					RM N/mm ²
0.3 – 3					1200–1700
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Annealing 750 – 780°C,Cooling oven	760	440	21	42	160
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	
Rolled stock, GOST 14959-79	1270	1175	6	30	
SOFT ANNEALED					HV
Soft annealed					230
QUENCHED AND TEMPERED					HV
Quenched and tempered					370–520
TREATED TO IMPROVE SHEARABILITY					HB
Treated to improve shearability					280
ANNEALED TO ACHIEVE SPHEROIDIZATION OF THE CARBIDES					HB
Annealed to achieve spheroidization of the carbides					230

Physical properties

8 values

CONDITION · DIMENSION			E GPa
20			196
PROPERTY	VALUE	UNIT	
Density	7.44	g/cm ³	

PROPERTY	VALUE	UNIT
Transformation point Ac1	755	°C
Transformation point Ac3	810	°C
Transformation point Ar3	770	°C
Transformation point Ar1	690	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	is not used.	
Flake sensitivity	not predisposed	
Temper brittleness	not predisposed	

Heat treatment

1 regimes

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

Designations across standards

43 designations · 10 documented as identical

United Kingdom	6	Spain	3
250A53	bs	55Si7	une
250A58 This grade's own name	bs	56Si7	une
250A61 This grade's own name	bs	F.1440	une
251A58	bs		
EN 45A This grade's own name	bs	Russia / CIS	3
EN45 This grade's own name	bs	40C2	gost
		55S2	gost
United States	4	55C2	gost
G92540	uns		
G92550 This grade's own name	uns	Sweden	3
9255 This grade's own name	aisi-sae	2085	ss
G92550	aisi-sae	2090	ss
		SIS 14 2090 This grade's own name	ss
France	4		
55S7	afnor	Poland	3
55Si7RR	afnor	40S2	pn
56SC7	afnor	50S2	pn
60Si8	afnor	55S2	pn

Europe	2
55Si7 This grade's own name	din-en
56Si7 This grade's own name	din-en
Italy	2
55Si7	uni
55Si8	uni
Czechia	2
13261	csn
13261 PH	csn
Australia / New Zealand	2
9255	as-nzs
XK9258S	as-nzs
United Kingdom / France	1
56Si7 This grade's own name	bsi-afnor
Japan	1
SUP7	jis

China	1
55Si2Mn	gb
Latin America	1
9254	copant
Serbia	1
Č.2133	srps
Hungary	1
55Si7	msz
Romania	1
56Si17A	stas
Bulgaria	1
55S2	bds
Belgium	1
55Si7	nbn

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 EN45

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	1.5026	Aug 20, 2026