

MATERIAL NUMBER 1.1269 · CLASS 1.1

FMR86

Material no. 1.1269

also listed as C85S

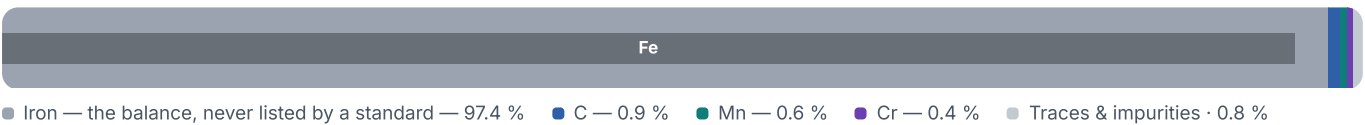
Chemical composition, mechanical and physical property values, and 33 standard designations from 14 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 33 in 14 regions	PROPERTY VALUES 9 on file
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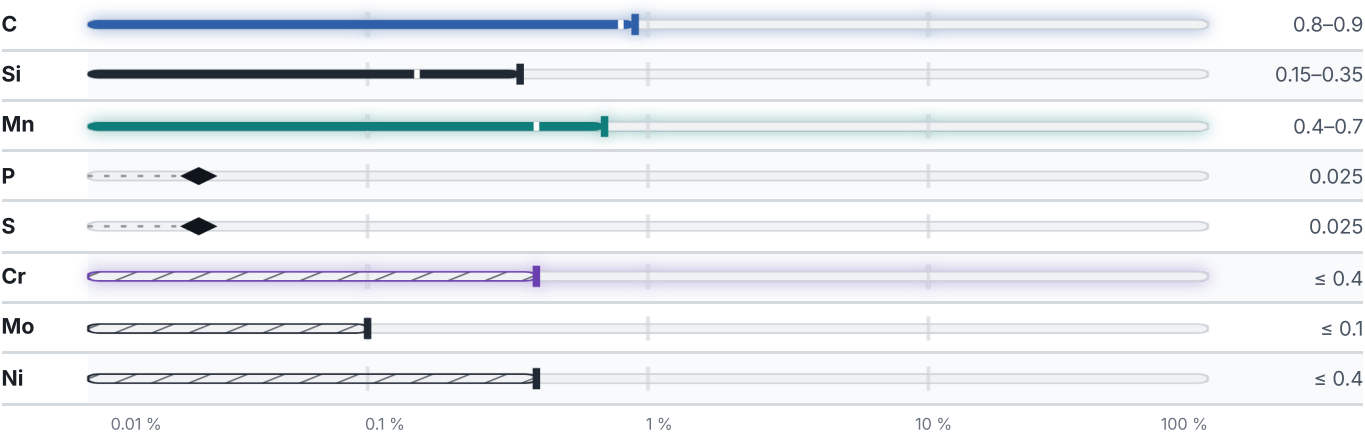
Chemical composition

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

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

7 values across 6 conditions

SOFT ANNEALED	RM N/mm²	A80 %
0.3 – 3	670	15
COLD ROLLED	RM N/mm²	
0.3 – 3		1190
QUENCHED AND TEMPERED	RM N/mm²	
0.3 – 3		1200–2000
SOFT ANNEALED		HV
Soft annealed		210
COLD ROLLED		HV
Cold rolled		325
QUENCHED AND TEMPERED		HV
Quenched and tempered		370–600

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

33 designations · 4 documented as identical

United States	9	United Kingdom	3
G10860	uns	80CS	bs
1080	aisi-sae	80HS	bs
1084	aisi-sae	CS80	bs
1085	aisi-sae		
1086	aisi-sae	Italy	3
A68	aisi-sae	3CD85	uni
G10840	aisi-sae	C85	uni
G10850	aisi-sae	C90	uni
G10860	aisi-sae		
France	4	Poland	3
C90RR	afnor	85	pn
FMR86	afnor	D85	pn
XC85	afnor	gat. 85	pn
XC90	afnor		

Europe	2	Russia / CIS	1
C85S This grade's own name	din-en	85	gost
Ck 85 This grade's own name	din-en		
Japan	2	Czechia	1
SK5-CSP	jis	12090	csn
SUP3	jis		
International	1	Slovakia	1
CS85	iso	12090	stn
China	1	Romania	1
85	gb	OLC85A	stas
		Bulgaria	1
		85	bds

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 FMR86

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.

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ISSUED

Aug 20, 2026