

MATERIAL NUMBER 1.0612 · CLASS 1.0

FMR68

Material no. 1.0612

also listed as C66D

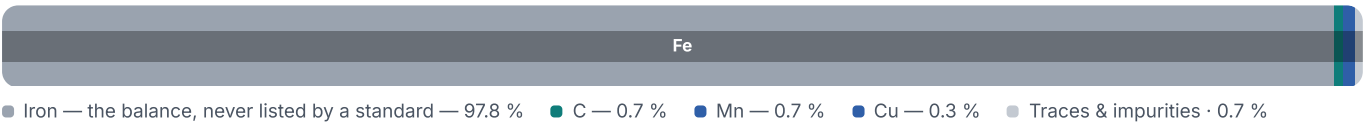
Chemical composition, mechanical and physical property values, and 32 standard designations from 12 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 32 in 12 regions	PROPERTY VALUES 17 on file
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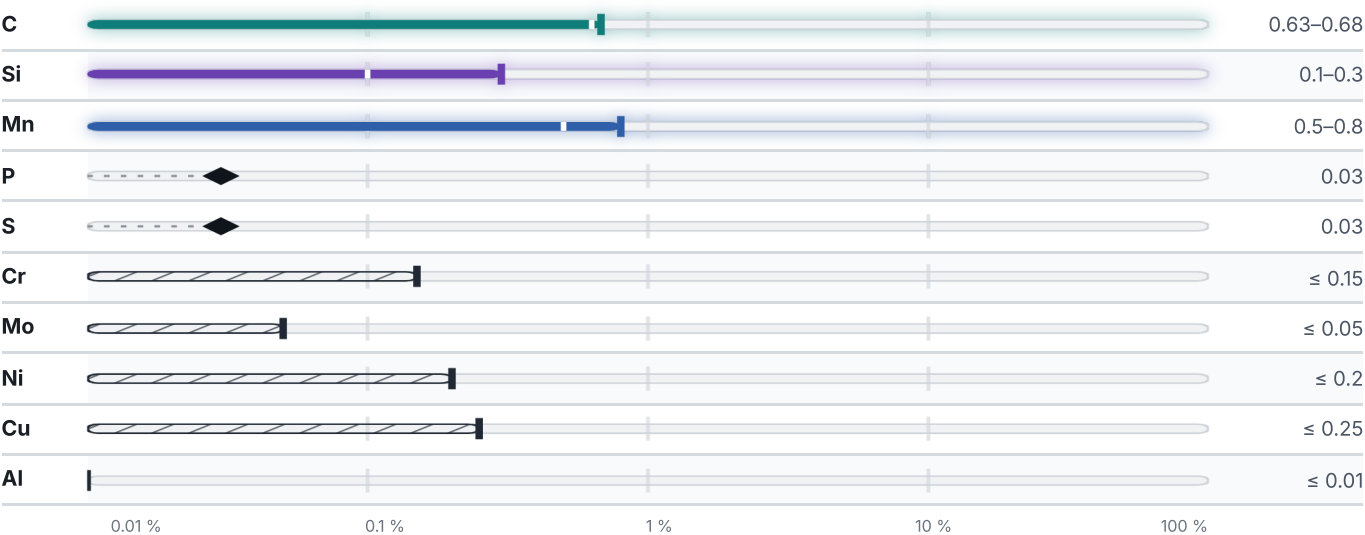
Chemical composition

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

9 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	A5 %	HB
Band annealed , GOST 2284-79	440–740	10	–
Band cold-worked , GOST 2284-79	740–1130	–	–
(without heat treatment) , GOST 14959	–	–	255
Sheet trick GOST 1577-93	–	–	229

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %
Rolled stock, GOST 14959-79	980	785	10	35

Physical properties

7 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ^{^-6} /K	LAMBDA W/(m·K)	CP J/(kg·K)
20	7.81	205	–	–	–
100	–	–	11	68	483
200	–	–	11.6	53	–
300	–	–	12.3	–	–
400	–	–	13.2	36	525
500	–	–	13.8	31	–
600	–	–	14.2	–	–
700	–	–	14.6	–	–
800	–	–	14.7	–	–
900	–	–	13.9	–	–
1000	–	–	14.8	–	–

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³
Transformation point Ac1	727	°C
Transformation point Ac3	752	°C
Transformation point Ar3	730	°C
Transformation point Ar1	696	°C

Technological properties

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

Designations across standards

32 designations · 3 documented as identical

United States		9	Japan		2
G10650	This grade's own name	uns	S58C		jis
1060		aisi-sae	SUP2		jis
1064		aisi-sae			
1065	This grade's own name	aisi-sae	Italy		2
G10640		aisi-sae	3CD65		uni
G10650		aisi-sae	C67		uni
G10690		aisi-sae			
G10700		aisi-sae	Poland		2
Gr.1070		aisi-sae	65		pn
			D65		pn
Russia / CIS		7	Europe		1
65		gost	C66D	This grade's own name	din-en
65G		gost			
85KH4M5F2V6L		gost	China		1
85X4M5Φ2B6Л		gost	65		gb
CHYU6S5		gost			
R6AM5		gost	Czechia		1
P6M5Л		gost	12071		csn
France		3	Romania		1
C68		afnor	OLC65A		stas
FMR66		afnor			
FMR68		afnor	Bulgaria		1
United Kingdom		2	65		bds
O60A67		bs			
O80A67		bs			

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 FMR68

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

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ISSUED

Aug 20, 2026