

MATERIAL NUMBER 1.1120 · CLASS 1.1

Gr.80-40

Material no. 1.1120

also listed as G19Mn5

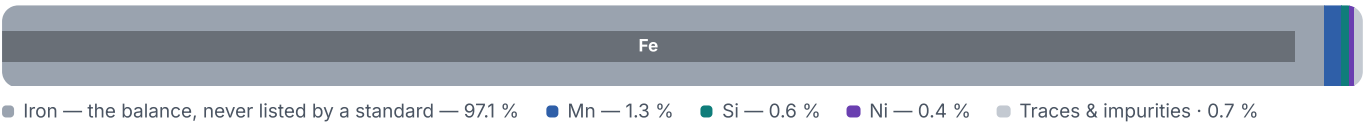
Chemical composition, mechanical and physical property values, and 29 standard designations from 13 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 29 in 13 regions	PROPERTY VALUES 11 on file
------------------------------	---	--------------------------------------

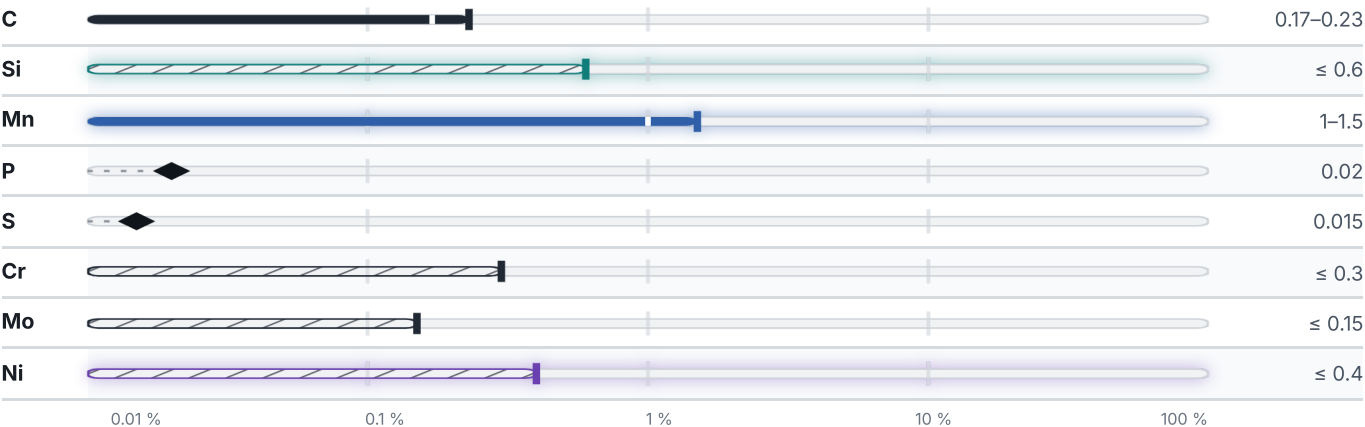
Chemical composition

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 811 °C	PREDICTED AE1 716 °C	PREDICTED ACM 463 °C	PREDICTED BS 549 °C
--------------------------------	--------------------------------	--------------------------------	-------------------------------

Mechanical properties

6 values across 2 conditions

QUENCHING 860°C, WATER, DRAWING 600°C, AIR	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 25	570	340	18	45	700
CONDITION · DIMENSION					HB
(annealing) , GOST 4543-71					207

Physical properties

3 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Technological properties

PROPERTY	VALUE	UNIT
Flake sensitivity	weakly predisposed	
Temper brittleness	weakly predisposed	

Designations across standards

29 designations · 4 documented as identical

United States		9	Japan		3
J02505	This grade's own name	uns	SCA1		jis
1035		aisi-sae	SCMn1		jis
1037		aisi-sae	SCMn2		jis
A352GrLCC		aisi-sae	Czechia		2
Gr.80-40		aisi-sae	422709		csn
GrA2Q		aisi-sae	422714		csn
GrWCC		aisi-sae	United Kingdom		1
J02503		aisi-sae	Gr.A		bs
J02505		aisi-sae	France		1
Russia / CIS		4	35M5		afnor
20GL		gost	Italy		1
20ГЛ		gost	G22Mn3		uni
35G		gost	Poland		1
35Г		gost	L20G		pn
Europe		3	Hungary		1
G19Mn5	This grade's own name	din-en	Ao20Mn6		msz
G20Mn5	This grade's own name	din-en			
GS-20 Mn 5	This grade's own name	din-en			

Romania	1	Austria	1
T20Mn14	stas	GS21Mn5	onorm
Bulgaria	1		
20L	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 Gr.80-40

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	1.1120	Aug 20, 2026