

MATERIAL NUMBER 1.4027 · CLASS 1.4

Z20C13M

Material no. 1.4027

also listed as GX20Cr14

Chemical composition, mechanical and physical property values, and 28 standard designations from 15 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 28 in 15 regions	PROPERTY VALUES 9 on file
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Chemical composition

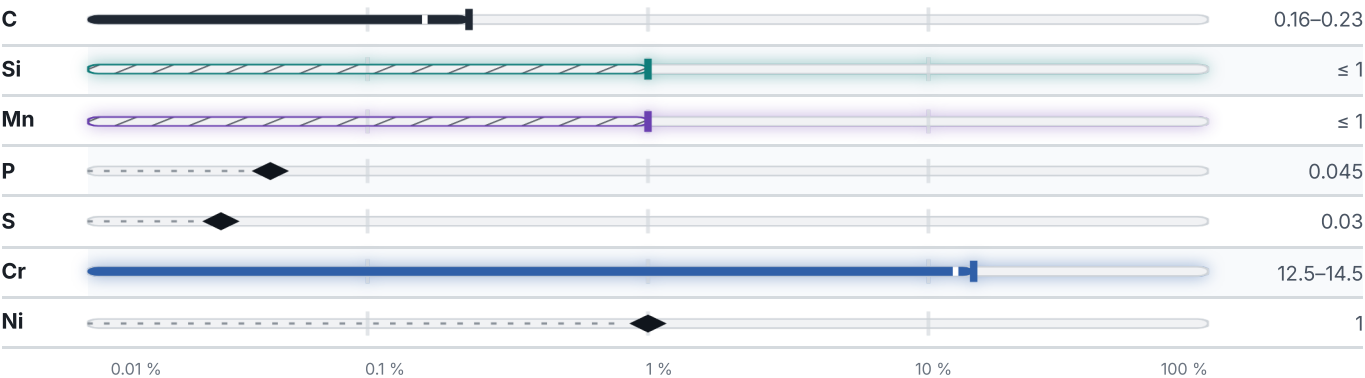
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 83.2 % ● Cr — 13.5 % ● Si — 1 % ● Mn — 1 % ● Traces & impurities · 1.3 %

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

Not enough recorded composition to predict a transformation temperature for this grade — missing: Mo.

Mechanical properties

10 values across 2 conditions

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A %	Z %	HB
Casting	590	390	16	35	–
Quenched and tempered	–	–	–	–	170–235
CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
to 100	589	441	16	40	392

Physical properties

2 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.74	222	–	21	–	645
100	–	216	10	23	470	695
200	–	211	10.8	24	491	775
300	–	203	11.3	25	512	859
400	–	195	11.7	26	533	931
500	–	184	12.1	27	563	985
600	–	167	12.4	27	596	1055
700	–	149	12.6	27	643	1115
800	–	140	12.8	28	680	1125
900	–	–	10.8	28	693	1160
PROPERTY			VALUE	UNIT		
Density			7.85	g/cm³		

Technological properties

PROPERTY	VALUE	UNIT
Weldability	limited weldability.	

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with (or)		
Annealing	950 °C	—
Quenching	1050 °C	—

Designations across standards

28 designations · 1 documented as identical

United Kingdom	8	Hungary	2
420C24	bs	AoX12Cr13	msz
420C29	bs	AoX20CrNi14	msz
56B	bs		
ANC 1 grade B	bs	France	1
ANC 1 grade C	bs	Z20C13M	afnor
ANC1B	bs		
ANC1C	bs	Spain	1
EN56B	bs	AMX20Cr13	une
Russia / CIS	3	Japan	1
20Ch13L	gost	SCS2	jis
20KH13L	gost		
20X13Л	gost	Italy	1
Europe	2	GX30Cr13	uni
1.4027	din-en	Czechia	1
GX20Cr14 This grade's own name	din-en	422 906	csn
United States	2	Poland	1
Gr.CA16	aisi-sae	LH14	pn
J91153	aisi-sae		
China	2	Romania	1
ZG20Cr13	gb	T20Cr130	stas
ZG2Cr13	gb	Bulgaria	1
		2Ch13L	bds
		South Korea	1
		SSC2	ks

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 Z20C13M

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

[Start an enquiry](#)

DATASHEET ONLINE

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GRADE SEARCH

Search all grades

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ISSUED

Aug 20, 2026