

MATERIAL NUMBER 1.1167 · CLASS 1.1

SMn438

Material no. 1.1167

also listed as 36Mn5

Chemical composition, mechanical and physical property values, and 82 standard designations from 17 regions.

DENSITY**7.85** g/cm³**OTHER DESIGNATIONS****82** in 17 regions**PROPERTY VALUES****12** on file

Chemical composition

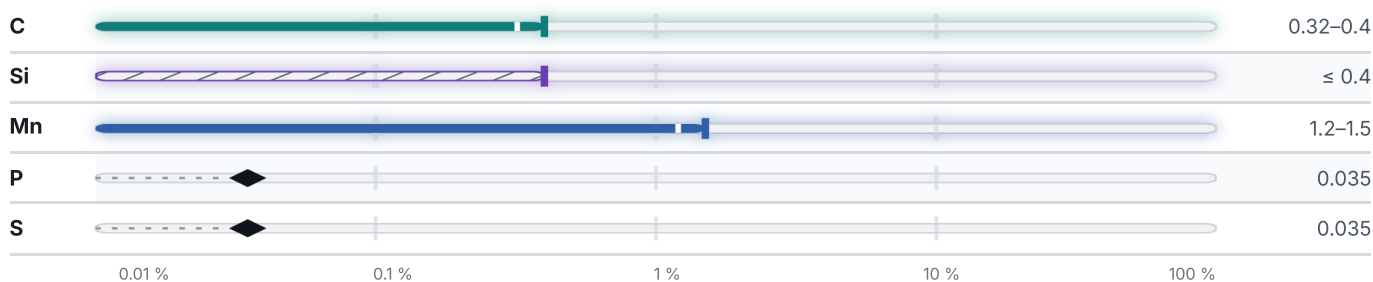
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.8 % ● Mn — 1.4 % ● Si — 0.4 % ● C — 0.4 % ● Traces & impurities · 0.1 %

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: Ni, Cr, Mo.

Mechanical properties

10 values across 3 conditions

QUENCHING 870°C, OIL, DRAWING 650°C, AIR	RM N/mm ²	RE N/mm ²	A5 %	Z %
Ø 25	620	365	13	40

NORMALIZING	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
100 - 300	530	275	17	38	340
CONDITION · DIMENSION					HB
(annealing) , GOST 4543-71					207

Physical properties

7 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	LAMBDA W/(m·K)
20	7.79	204	–
100	–	–	40
200	–	–	38
300	–	–	37
400	–	–	36
500	–	–	35
PROPERTY	VALUE	UNIT	
Density	7.85	g/cm ³	
Transformation point Ac1	718	°C	
Transformation point Ac3	804	°C	
Transformation point Ar3	727	°C	
Transformation point Ar1	677	°C	

Technological properties

PROPERTY	VALUE	UNIT
Flake sensitivity	predisposed	
Temper brittleness	predisposed	

Designations across standards

82 designations · 9 documented as identical

Russia / CIS		26	Japan		7
30HG2STL		gost	SCMn2		jis
30Kh2NMA		gost	SCMn3		jis
30Kh2NMFA		gost	SMn438		jis
30Kh2NVA		gost	SMn438H		jis
30Kh2NVFA		gost	SMn443		jis
30KhGSN2MA-VD		gost	SMn443H		jis
30KHGSN2A		gost	SUM41		jis
30KHN2MFA		gost	Spain		5
30KhN2VA		gost	36Mn5		une
30KhN2VFA		gost	36Mn6		une
30KHS2		gost	F.1203		une
30Г2		gost	F.1203-36Mn5		une
30ХГ2СТЛ		gost	F.8212		une
30ХГCH2MA		gost	China		4
30ХГCHA		gost	30Mn2		gb
35G2		gost	35Mn2		gb
35G2F		gost	40Mn2		gb
35G2FA		gost	Z640Mn		gb
35GL		gost	France		3
35KHG2		gost	35M5		afnor
35KHGN2		gost	36Mn5		afnor
35KHN2ML		gost	40 M 5		afnor
35Г2		gost	International		3
35ГЛ		gost	36Mn6		iso
AS35G2		gost	36Mn6H		iso
СТ.30Г2		gost	42Mn6		iso
United States		17	South Korea		3
G13350	This grade's own name	uns	SCMn3		ks
G15410	This grade's own name	uns	SMn438		ks
H13350	This grade's own name	uns	SMn438H		ks
H15410	This grade's own name	uns	Europe		2
1137		aisi-sae	1.1167		din-en
1139		aisi-sae	36Mn5	This grade's own name	din-en
1330		aisi-sae	United Kingdom		2
1335	This grade's own name	aisi-sae	150M36		bs
1335H	This grade's own name	aisi-sae	EN 15		bs
1541	This grade's own name	aisi-sae	Czechia		2
1541H	This grade's own name	aisi-sae	14240		csn
G11390		aisi-sae	422 715		csn
G13350		aisi-sae			
G15410		aisi-sae			
Gr.1340H		aisi-sae			
H13350		aisi-sae			
H15410		aisi-sae			

Romania	2	Latin America	1
35Mn16	stas	1541	copant
T35Mn14	stas		
Bulgaria	2	Poland	1
35G2	bds	L35G	pn
35GL	bds	Hungary	1
Sweden	1	Ao35Mn6	msz
2120	ss		

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 SMn438

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	1.1167	Aug 20, 2026