

MATERIAL NUMBER 1.3520 · CLASS 1.3

A485 Gr1

Material no. 1.3520

also listed as 100CrMn6

Chemical composition, mechanical and physical property values, and 33 standard designations from 15 regions.

DENSITY

7.56 g/cm³

OTHER DESIGNATIONS

33 in 15 regions

PROPERTY VALUES

15 on file

Chemical composition

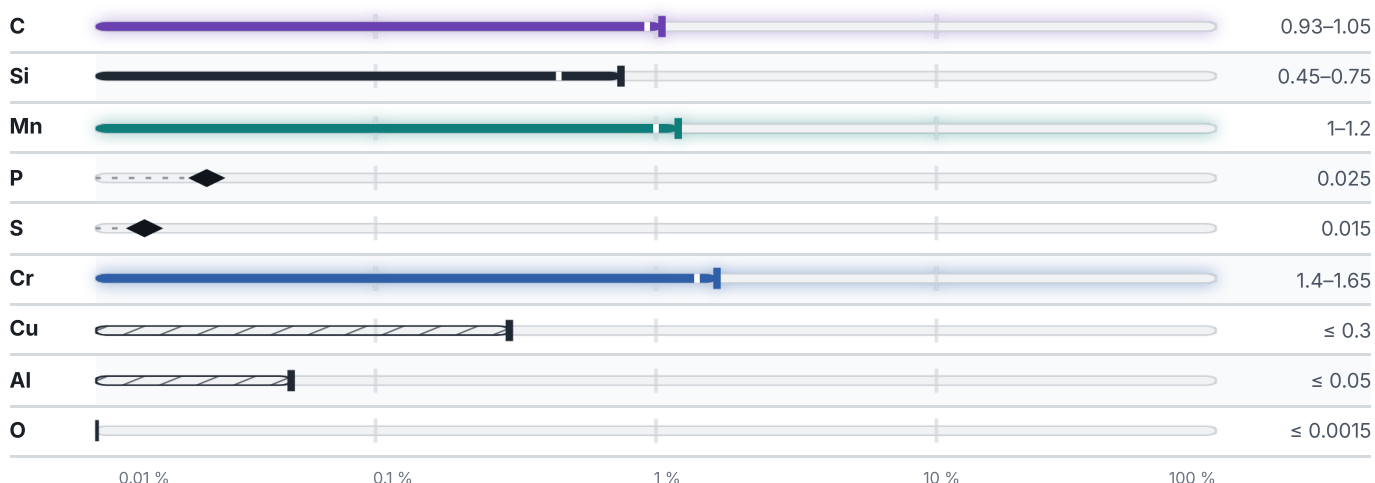
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 95.4 % ● Cr — 1.5 % ● Mn — 1.1 % ● C — 1 % ● Traces & impurities · 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, Mo.

Mechanical properties

6 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Steel	590–730	370–410	20	45	440
CONDITION · DIMENSION					HB
(hot-rolled) , Rolled stock GOST 801-78					179–217

Physical properties

6 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10^-6/K
20	7.65	211	—
200	—	—	13.4
300	—	—	13.6
PROPERTY	VALUE	UNIT	
Density	7.56	g/cm³	
Transformation point Ac1	750	°C	
Transformation point Ac3	910	°C	
Transformation point Ar1	688	°C	

Technological properties

PROPERTY	VALUE	UNIT
Flake sensitivity	predisposed	
Temper brittleness	predisposed	

Designations across standards

33 designations · 5 documented as identical

United States		7	Russia / CIS		4
A 485		uns	Šch15SG		gost
K19195	This grade's own name	uns	SchCh15SG	This grade's own name	gost
A485		aisi-sae	SHKH15SG		gost
Gr.2		aisi-sae	ШХ15СГ		gost
K19195		aisi-sae			
A485		astm	China		3
A485 Gr1	This grade's own name	astm	Cr9SiMn		gb
			GCr15SiMn		gb
			GCr9SiMn		gb

Poland	3	Romania	2
LH15SG	pn	RUL2	stas
ŁH15SG	pn	RUL2v	stas
NCMS	pn		
Europe	2	United Kingdom	1
100CrMn6 This grade's own name	din-en	535A99	bs
100CrMnSi6-4 This grade's own name	din-en	Japan	1
France	2	SUJ3	jis
100CM6	afnor	Czechia	1
100CrMn6	afnor	14209	csn
Spain	2	Slovakia	1
100CrMn6	une	14 209	stn
F-1312	une	Hungary	1
International	2	GO4	msz
100CrMnSi6-4	iso	Bulgaria	1
3520	iso	SchCh15SG	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 A485 Gr1

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

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DATASHEET ONLINE

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GRADE SEARCH

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MATERIAL NO.

1.3520

ISSUED

Sep 8, 2026