

MATERIAL NUMBER 1.1555 · CLASS 1.1

S122

Material no. 1.1555

also listed as C120U

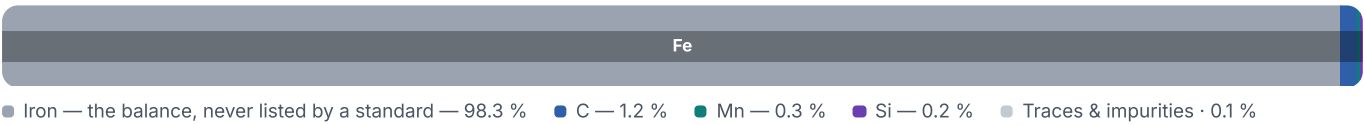
Chemical composition, mechanical and physical property values, and 31 standard designations from 16 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 31 in 16 regions	PROPERTY VALUES 12 on file
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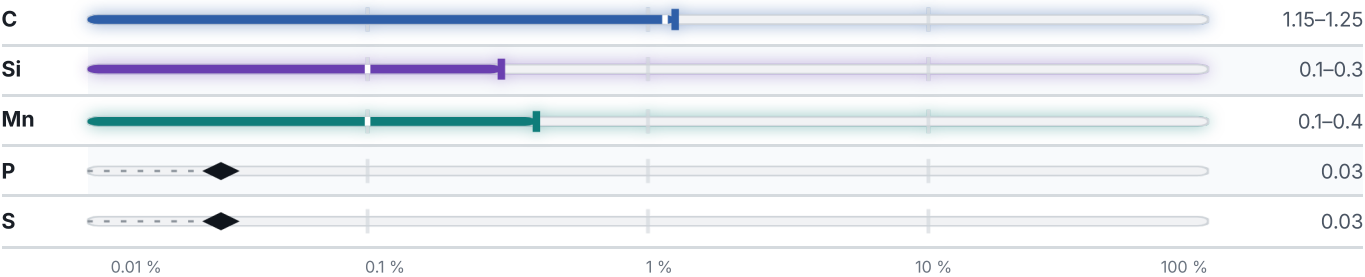
Chemical composition

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

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

Mechanical properties

9 values across 4 conditions

SOFT ANNEALED	HB
Soft annealed	217

CONDITION · DIMENSION	RM N/mm ²	A5 %
0.08 - 3	750	10

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Steel	590–690	325	28	50	270

CONDITION · DIMENSION	HB
(annealing) , GOST 1435-99	217

Physical properties

7 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.83	209	–	–	–	–
100	7.809	205	10.5	45	469	252
200	7.781	200	11.8	43	503	333
300	7.749	193	12.6	40	519	430
400	7.713	185	13.4	37	536	540
500	7.675	178	13.1	35	553	665
600	7.634	166	14.8	32	720	802
700	7.592	–	15.3	28	611	964
800	7.565	–	15	24	712	1152
900	7.489	–	16.3	25	703	1196
1000	–	–	16.8	–	699	–

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³
Transformation point Ac1	730	°C
Transformation point Ac3	820	°C
Transformation point Ar1	700	°C

Technological properties

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

Designations across standards

31 designations · 3 documented as identical

United States	4	Czechia	2
T72301	uns	19221	csn
W1-11-1/2	aisi-sae	19225	csn
W112 This grade's own name	aisi-sae		
W1C 1,20% This grade's own name	aisi-sae	Poland	2
Europe	3	N12	pn
C110W1	din-en	N12E	pn
C120U This grade's own name	din-en	Hungary	2
C125W	din-en	S121	msz
		S122	msz
China	3	United Kingdom	1
T00123	gb	BW1C	bs
T11	gb	International	1
T12A	gb	C120U	iso
Russia / CIS	3	Italy	1
u12	gost	C120KU	uni
Y12	gost		
Y12A	gost	Slovakia	1
France	2	19 221	stn
C120E3U	afnor	Bulgaria	1
Y2120	afnor	U12	bds
Spain	2	Austria	1
C120	une	K990	onorm
F-1523	une		
Japan	2		
SK120	jis		
SK2	jis		

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 S122

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	1.1555	Aug 20, 2026