

MATERIAL NUMBER 1.0114 · CLASS 1.0

S235J0

Material no. 1.0114

Chemical composition, mechanical and physical property values, and 30 standard designations from 21 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	30 in 21 regions	10 on file

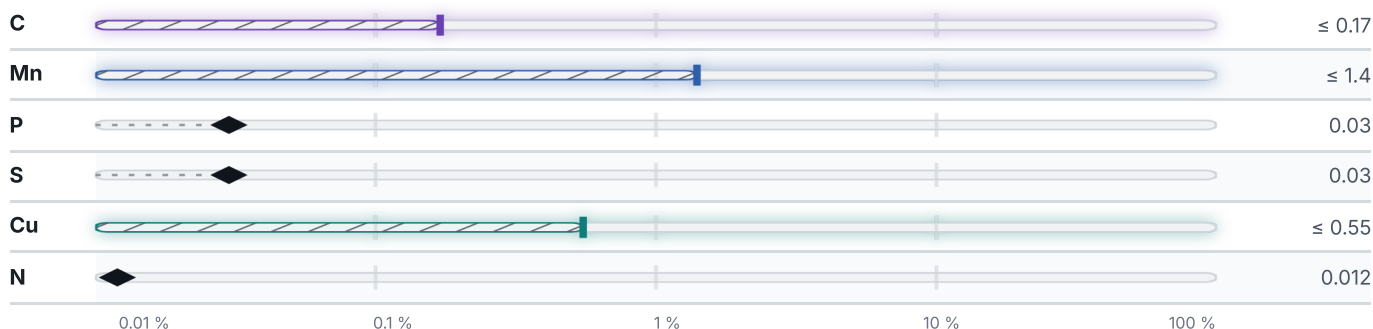
Chemical composition

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

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

Mechanical properties

39 values across 3 conditions

FLAT AND LONG PRODUCTS	REH N/mm ²	RM N/mm ²		
≤ 3	–	360–510		
3 – 100	–	360–510		
≤ 16	235	–		
16 – 40	225	–		
40 – 63	215	–		
63 – 80	215	–		
80 – 100	215	–		
100 – 150	195	350–500		
150 – 250	–	340–490		
150 – 200	185	–		
200 – 250	175	–		
CONDITION · DIMENSION	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So		
≤ 1	17	–		
1 – 1.5	18	–		
1.5 – 2	19	–		
2 – 2.5	20	–		
2.5 – 3	21	–		
3 – 40	–	26		
40 – 63	–	25		
63 – 100	–	24		
100 – 150	–	22		
150 – 250	–	21		
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %
Pipe, GOST 8696-74	372	245	23	–
Pipe, GOST 10705-80	372	225	22	–
Rolled stock, GOST 535-2005	370–490	205–255	23–26	–
Sheet trick, GOST 14637-89	370–480	205–245	23–26	–
Rebar, GOST 5781-82	373	235	25	–
Wire rods , GOST 30136-95	490–540	–	–	60

Physical properties

4 values

CONDITION · DIMENSION		RHO g/cm³	
20		7.85	

PROPERTY	VALUE	UNIT	
Density	7.85	g/cm³	

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	
Flake sensitivity	not predisposed	
Temper brittleness	not predisposed	

Designations across standards

30 designations · 3 documented as identical

Europe		4	Spain		1
A284D	din-en		AE235C		une
Fe360C	din-en		International		1
S235J0	This grade's own name	din-en			
St 37-3 U	This grade's own name	din-en	E235C		iso
United States		3	Norway		1
K02401	This grade's own name	uns	NS12124		ns
A284C	aisi-sae		Japan		1
A284D	aisi-sae				
United Kingdom		2	SM400B		jis
40C	bs		Portugal		1
Gr 40C	bs				
Russia / CIS		2	FE360-C		np
St3ps	gost		China		1
St3sp	gost				
Brazil		2	Q235C		gb
NBR 5008 CGR400	abnt		Italy		1
NBR 5921 CFR400	abnt				
Hungary		2	Fe360C		uni
37 C	msz		Sweden		1
Fe 235 C	msz				
France		1	1312		ss
E24-3	afnor		Czechia		1
			11378		csn
			Slovakia		1
			11 378		stn

Poland	1	Austria	1
St3W	pn	St360C	onorm
South Africa	1	Belgium	1
240 WC	sans	AE235C	nbn

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 S235J0

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	1.0114	Aug 20, 2026