SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.0570 · CLASS 1.0

S355J2G3

Material no. 1.0570

also listed as S355J2

Chemical composition, mechanical and physical property values, and 112 standard designations from 21 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	**112** in 21 regions	**11** on file

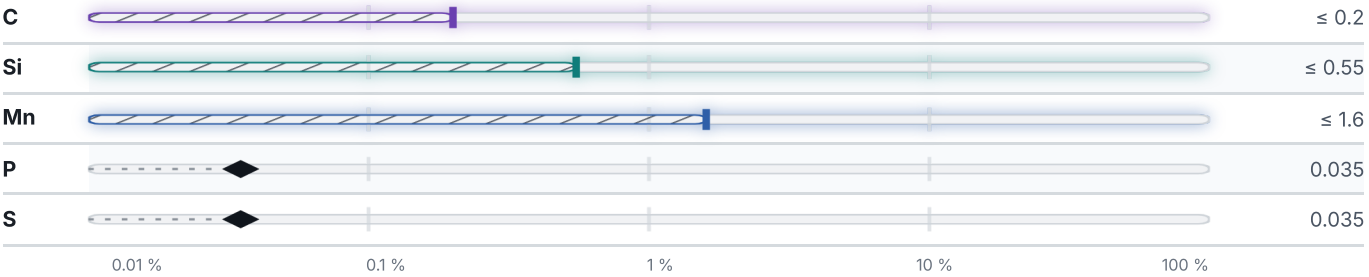
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 97.6 % · Mn — 1.6 % · Si — 0.6 % · C — 0.2 % · 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

29 values across 3 conditions

FLAT AND LONG PRODUCTS	REH N/mm²	RM N/mm²
≤ 3	–	510–680

FLAT AND LONG PRODUCTS	REH N/mm²	RM N/mm²
3 – 100	–	470–630
≤ 16	355	–
16 – 40	345	–
40 – 63	335	–
63 – 80	325	–
80 – 100	315	–
100 – 150	295	450–600
150 – 250	–	450–600
150 – 200	285	–
200 – 250	275	–
250 – 400	–	450–600

CONDITION · DIMENSION	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So
≤ 1	14	–
1 – 1.5	15	–
1.5 – 2	16	–
2 – 2.5	17	–
2.5 – 3	18	–
3 – 40	–	22
40 – 63	–	21
63 – 100	–	20
100 – 150	–	18
150 – 250	–	17

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %
Sheet, GOST 5520-79	490–510	335–345	23
Pipe, GOST 10705-80	490	343	20

Physical properties

6 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³
Transformation point Ac1	745	°C

PROPERTY	VALUE	UNIT
Transformation point Ac3	870	°C
Transformation point Ar3	790	°C
Transformation point Ar1	680	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	

Designations across standards

112 designations · 9 documented as identical

United Kingdom 16

1449-50/35HR	bs
1449-50/35HS	bs
4360 50 B	bs
4360-50C	bs
4360-50D	bs
50C	bs
50D	bs
CEW5	bs
D1FF	bs
ERW5	bs
Fe510	bs
Fe510D1FF	bs
Gr 50D	bs
S355J0	bs
S355J2G3	bs
SAW5	bs

Japan 14

SM490	jis
SM490A	jis
SM490B	jis
SM490C	jis
SM490YA	jis
SM490YB	jis
SM50A	jis
SM520B	jis
SM520C	jis
SM53C	jis
SS490C	jis
STK490	jis
STKM16C	jis
STKR490	jis

Russia / CIS 11

17G1S	gost
17G1S-U	gost
17GS	gost
17GS-1	gost
17Г1С	gost
17ГС	gost
35	gost
CHS17	gost
S345	gost
C345	gost
ст.17ГС	gost

Italy 11

Fe510	uni
Fe510B	uni
Fe510C	uni
Fe510CFN	uni
Fe510D	uni
Fe52BFN	uni
Fe52CFN	uni
FeE420	uni
S355J0	uni
S355J2G3	uni
S355JR	uni

United States 7

K03011 This grade's own name	uns
K03014 This grade's own name	uns
K12037 This grade's own name	uns
K12709 This grade's own name	uns
1024 This grade's own name	aisi-sae
Gr.50type1-4	aisi-sae
A350LF2 This grade's own name	astm

Poland 7

15GA	pn
16G2	pn
18G2	pn
18G2A	pn
18G2AA	pn
18G2ACu	pn
G355	pn

China 6

16Mn	gb
16MnDR	gb
16Mng	gb
16MnL	gb
16MnR	gb
HP345	gb

Sweden 6

2132	ss
2133	ss
2134	ss
2135-01	ss
2172	ss
2174	ss

France 5

E36-3	afnor
E36-4	afnor
S355J0	afnor
S355J2G3	afnor
S355K2G3	afnor

Spain 5

A510C	une
AE355D	une
Fe510D1FF	une
S355J2G3	une
S355J2G4	une

Europe 4

1.0570	din-en
S355J2 This grade's own name	din-en
S355J2G3 This grade's own name	din-en
St 52-3 This grade's own name	din-en

Czechia 4

11438	csn
11483	csn
11503	csn
11523	csn

Hungary 4

45D	msz
B50.36	msz
Fe355C/FF	msz
S355J2G3	msz

Romania 2

OL52.3	stas
OL52.4	stas

Bulgaria 2

17GS	bds
S355J2G3	bds

South Africa 2

350 WDD	sans
350WD	sans

Austria 2

St510D	onorm
St52F	onorm

Slovakia 1

11 503	stn

Serbia 1

Č.0563	srps

Belgium 1

FE510D1FF	nbn

South Korea 1

STKM16C	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 S355J2G3

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	1.0570	Aug 20, 2026