

MATERIAL NUMBER 1.0038 · CLASS 1.0

SAPH38

Material no. 1.0038

also listed as RSt 37-2

Chemical composition, mechanical and physical property values, and 152 standard designations from 25 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	152 in 25 regions	8 on file

Chemical composition

Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.8 % ● Mn — 1.4 % ● Cu — 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: Si, Ni, Cr, Mo.

Mechanical properties

12 values across 2 conditions

NORMALIZED		RM N/mm ²	A %
≤ 100		340	24
100 – 250		340	23
250 – 500		340	23

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %
2 - 3.9	370	245	20
4 - 10	370	245	25

Physical properties

2 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	

Designations across standards

152 designations · 9 documented as identical

United States		23	Italy		11
K01500	This grade's own name	uns	FE360B		uni
K01702	This grade's own name	uns	Fe360BFN		uni
K02401	This grade's own name	uns	Fe360C		uni
K02502	This grade's own name	uns	Fe360CFN		uni
K03000	This grade's own name	uns	Fe360D		uni
A284Gr.D		aisi-sae	Fe360DFF		uni
A570		aisi-sae	Fe37-2		uni
A570 Gr. 36		aisi-sae	S235J0		uni
A570.36		aisi-sae	S235J2G3		uni
A573Gr.58		aisi-sae	S235J2G4		uni
A611Gr.C		aisi-sae	S235JRG2		uni
Gr.36		aisi-sae			
GradeC		aisi-sae	China		10
K01804		aisi-sae	15		gb
K02001		aisi-sae	40B	This grade's own name	gb
K02301		aisi-sae	A3		gb
K02502		aisi-sae	Q235		gb
K02601		aisi-sae	Q235-A		gb
K02701		aisi-sae	Q235A-B		gb
K02702		aisi-sae	Q235A-Z		gb
M1017		aisi-sae	Q235B		gb
A283GRC		astm	Q235B-Z		gb
A570		astm	Q235C		gb
United Kingdom		22	France		9
050A17		bs	A37-2		afnor
1449-27/23CR		bs	E 24-2 Ne –		afnor
1449-37/23CR		bs	E24-2		afnor
37/23HR		bs	E24-3		afnor
40B		bs	E24-4		afnor
40C		bs	S235J0		afnor
40D		bs	S235J2G3		afnor
4360 40 C		bs	S235J2G4		afnor
4360-40B		bs	S235JRG2		afnor
4360-40D		bs			
4449-250		bs	Spain		8
722M24		bs	AE235B-FN		une
Fe360BFU		bs	AE235BFU		une
Fe360D1FF		bs	AE235D		une
Gr 40A		bs	Fe360BFN		une
HFS3		bs	Fe360BFU		une
HFS4		bs	Fe360D1FF		une
HFW3		bs	S235J2G3		une
HFW4		bs	S235JRG2		une
S235J2G3		bs			
S235JR		bs			
S235JRG2		bs			

Japan	7	International	4
SAPH38	jis	E235-B	iso
SS330	jis	E235-C	iso
SS34	jis	Fe360-C	iso
SS400	jis	Fe360B	iso
STKM 12A	jis		
STKM 12A STKM 12C	jis	Sweden	4
STKM 12C	jis	1311	ss
		1312	ss
Poland	7	1312-00	ss
St3S	pn	1313	ss
St3SX	pn		
St3SY	pn	Czechia	4
St3V	pn	11342	csn
St3V St3VY	pn	11373	csn
St3VY	pn	11375	csn
St3W	pn	11378	csn
Hungary	7	Finland	4
37 B	msz	Fe37B	sfs
A 38 B	msz	FORM300H	sfs
Fe 235 B	msz	RACOLD03F	sfs
Fe235B/FN	msz	RACOLD215S	sfs
Fe235D	msz		
S235J2G3	msz	Brazil	3
S235JRG2	msz	NBR 6648 CG26	abnt
		NBR 6650 CF26	abnt
Bulgaria	7	NBR 7007 MR250	abnt
BSt3ps	bds		
BSt3sp	bds	Romania	3
Ew-08AA	bds	OL37.1	stas
S235J2G3	bds	OL37.2	stas
S235JRG2	bds	OL37.4	stas
WSt3ps	bds		
WSt3sp	bds	Belgium	3
		FE360BFN	nbn
Europe	5	FE360BFU	nbn
1.0038	din-en	FED1FF	nbn
Fe360BFN	din-en		
RSt 37-2 This grade's own name	din-en	Slovakia	1
S235JR This grade's own name	din-en	11 375	stn
S235JRG2 This grade's own name	din-en		
		Serbia	1
Russia / CIS	5	Č.0361	srps
S245	gost		
St3ps	gost	Croatia	1
St3sp	gost	Č0361	hrn
C245	gost		
Ct3cn	gost	South Africa	1
		240 WA	sans

Austria	1	Canada	1
RSt360B	onorm	230G	csa

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 SAPH38

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	1.0038	Aug 20, 2026