

MATERIAL NUMBER 1.0044 · CLASS 1.0

St42F

Material no. 1.0044

also listed as S275JR

Chemical composition, mechanical and physical property values, and 130 standard designations from 25 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 130 in 25 regions	PROPERTY VALUES 7 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: Si, Ni, Cr, Mo.

Mechanical properties

22 values across 2 conditions

FLAT AND LONG PRODUCTS	REH N/mm ²	RM N/mm ²
≤ 3	–	430–580
3 – 100	–	410–560
≤ 16	275	–
16 – 40	265	–
40 – 63	255	–
63 – 80	245	–
80 – 100	235	–
100 – 150	225	400–540
150 – 250	–	380–540
150 – 200	215	–
200 – 250	205	–
CONDITION · DIMENSION	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So
≤ 1	15	–
1 – 1.5	16	–
1.5 – 2	17	–
2 – 2.5	18	–
2.5 – 3	19	–
3 – 40	–	23
40 – 63	–	22
63 – 100	–	21
100 – 150	–	19
150 – 250	–	18

Physical properties

1 values

CONDITION · DIMENSION	RHO g/cm ³	RHO_EL nΩ·m
20	7.65	500
PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

130 designations · 13 documented as identical

[illegible]

Italy	5	Czechia	3
FE430B	uni	11423	csn
Fe430BFN	uni	11425	csn
Fe430C(FN)	uni	11443	csn
Fe430D(FF)	uni		
S275JR	uni	Belgium	3
Hungary	5	AE295B	nbn
45 B	msz	FE430BFN	nbn
A 44	msz	FE430D1FF	nbn
Fe275B	msz	Canada	3
FK	msz	260W	csa
S275JR	msz	260WT	csa
Bulgaria	5	38W	csa
BSt4ps	bds	Romania	2
BSt4sp	bds	OL42.1	stas
S275JR	bds	OL44.2	stas
WSt4ps	bds	Austria	2
WSt4sp	bds	St42F	onorm
France	4	St430B	onorm
E28-2	afnor	Norway	1
E28-3	afnor	NS12142	ns
E28-4	afnor	Portugal	1
S275JR	afnor	FE430-B	np
Poland	4	Slovakia	1
St4S	pn	11 443	stn
St4SY	pn	South Africa	1
St4V	pn	300 WB	sans
St4VY	pn	Finland	1
Russia / CIS	3	Fe44B	sfs
St4ps	gost	South Korea	1
St4sp	gost	STKM19C	ks
Cт4nc	gost		
Sweden	3		
1411	ss		
1412	ss		
1414	ss		

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 St42F

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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ISSUED

Aug 20, 2026