

MATERIAL NUMBER 1.0143 · CLASS 1.0

AE275C

Material no. 1.0143

also listed as S275J0

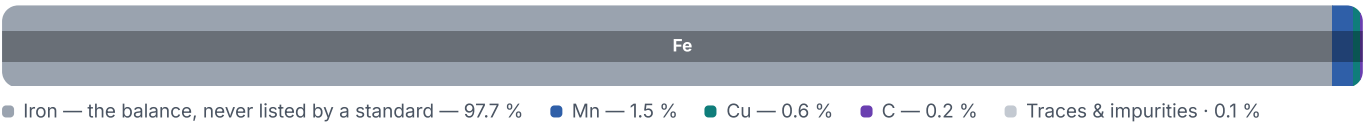
Chemical composition, mechanical and physical property values, and 25 standard designations from 16 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 25 in 16 regions	PROPERTY VALUES 8 on file
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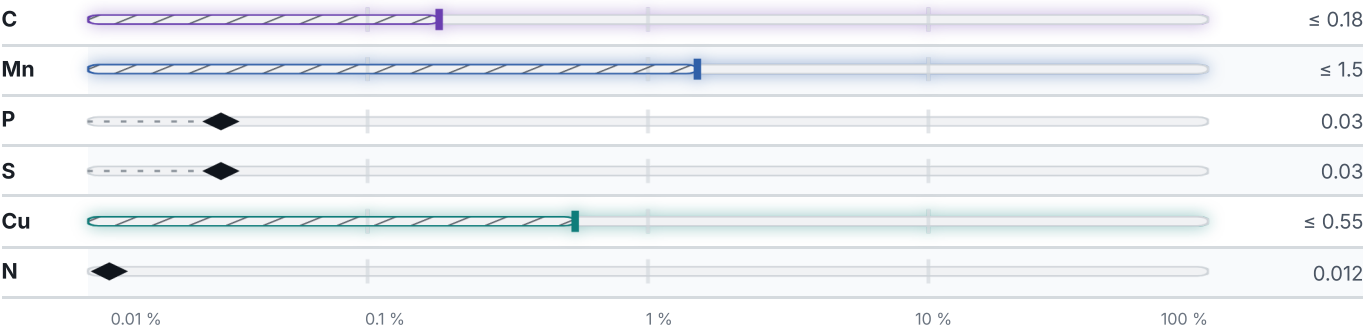
Chemical composition

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

31 values across 3 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	
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %
Pipe, GOST 10705-80	412	245	21
Rolled stock, GOST 535-2005	410–530	235–265	21–24
Sheet trick, GOST 14637-89	410–530	235–265	21–23

Physical properties

2 values

CONDITION · DIMENSION		RHO g/cm³	
20		7.85	

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	limited weldability.	

Designations across standards

25 designations · 3 documented as identical

Europe		5	France		1
Fe430C	din-en		E28-3		afnor
P265GH	din-en		International		
S275J0	This grade's own name	din-en	1		
St 44-3 U	This grade's own name	din-en	E275C		iso
St44-3	din-en		Norway		
United States		2	1		
K02702	This grade's own name	uns	NS12143		ns
A578Gr.70	aisi-sae		Portugal		
United Kingdom		2	1		
43C	bs		FE430-C		np
Gr 43C	bs		China		
Spain		2	1		
AE255C	une		Q275		gb
AE275C	une		Italy		
Russia / CIS		2	1		
St4ps	gost		Fe430C		uni
St4sp	gost		Poland		
Hungary		2	1		
45 C	msz		St4W		pn
Fe 275 C	msz		South Africa		
			1		
			300 WC		sans
			Austria		
			1		
			St430C		onorm
			Belgium		
			1		
			AE295C		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 AE275C

Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

DATASHEET ONLINE

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GRADE SEARCH

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ISSUED

Aug 20, 2026