

MATERIAL NUMBER 1.0425 · CLASS 1.0

A42

Material no. 1.0425

also listed as H II

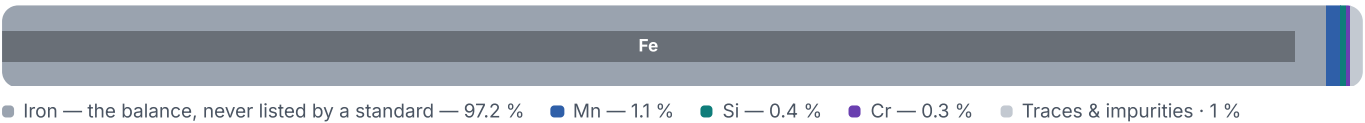
Chemical composition, mechanical and physical property values, and 79 standard designations from 19 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 79 in 19 regions	PROPERTY VALUES 22 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

computed from composition · °C

PREDICTED AE3 811 °C	PREDICTED AE1 715 °C	PREDICTED ACM 435 °C	PREDICTED BS 558 °C
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Mechanical properties

4 values across 1 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	KCU kJ/m ²
Sheet, GOST 5520-79	400-510	225-245	23-25	490-590

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.87	211	–	–	482	200
100	7.84	208	–	51	486	219
200	7.81	205	12	49	498	292
300	7.78	200	12.8	46	514	381
400	7.74	191	13.2	42	533	487
500	7.71	180	13.6	39	555	601
600	7.67	165	13.85	36	584	758
700	7.63	–	–	–	636	925
800	7.64	–	–	–	703	1094
900	7.61	–	–	–	703	1135
1000	7.55	–	–	–	695	1167
1100	7.49	–	–	–	691	1194
1200	–	–	–	–	687	1219
PROPERTY	VALUE		UNIT			
Density	7.85		g/cm ³			
Transformation point Ac1	724		°C			
Transformation point Ac3	845		°C			
Transformation point Ar3	817		°C			
Transformation point Ar1	682		°C			

Technological properties

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

Designations across standards

79 designations · 9 documented as identical

United States	15	Italy	8
K01701 This grade's own name	uns	Fe410-1KW	uni
K02402 This grade's own name	uns	Fe4101KG	uni
K02505 This grade's own name	uns	Fe4101KT	uni
K02704 This grade's own name	uns	Fe410KG	uni
K02801 This grade's own name	uns	Fe410KT	uni
A414E	aisi-sae	Fe410KW	uni
A516Gr.60	aisi-sae	P265GH	uni
Gr.A	aisi-sae	P269GH	uni
K01701	aisi-sae		
K02100	aisi-sae	Europe	5
K02401	aisi-sae	1.0425	din-en
K02402	aisi-sae	Gr.A	din-en
K02505	aisi-sae	H II This grade's own name	din-en
A515 Grade 60 This grade's own name	astm	P265GH This grade's own name	din-en
A516 This grade's own name	astm	St45.8	din-en
United Kingdom	9	France	5
1501Gr.161-400	bs	A42AP	afnor
151-400	bs	A42CP	afnor
154-400	bs	A42F	afnor
161-400	bs	AP	afnor
161-430	bs	P265GH	afnor
161Gr.400	bs		
164Gr.400	bs	Spain	4
244Gr.400	bs	A42	une
P269GH	bs	A42 RC 1	une
		A42RCI	une
		A42RCII	une
Japan	8		
SG295	jis		
SG30	jis	Russia / CIS	3
SGV410	jis	16K	gost
SGV450	jis	16K	gost
SGV480	jis	20K	gost
SPV235	jis		
SPV315	jis	Sweden	3
SPV355	jis	1430	ss
		1431	ss
		1432	ss

Poland	3	Romania	2
St36K	pn	K410	stas
St41K	pn	OL44.3	stas
St44K	pn		
Hungary	3	Bulgaria	2
KL2	msz	16K	bds
KL2C	msz	P265GH	bds
P265GH	msz		
International	2	South Korea	2
F5	iso	SPPV315	ks
F7	iso	SPPV355	ks
Czechia	2	Slovakia	1
11416	csn	11 418	stn
11418	csn	Austria	1
		St41KW	onorm
		Belgium	1
		D42-1	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 A42

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	1.0425	Aug 20, 2026