

MATERIAL NUMBER 1.0562 · CLASS 1.0

223Gr.490

Material no. 1.0562

also listed as P355N

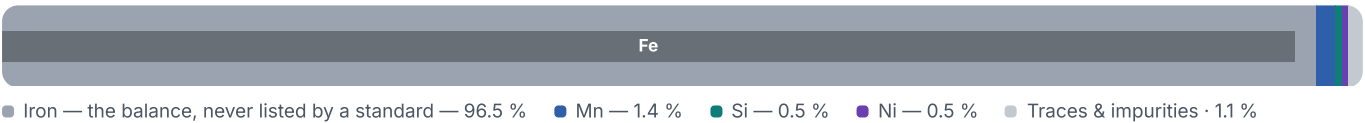
Chemical composition, mechanical and physical property values, and 74 standard designations from 17 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 74 in 17 regions	PROPERTY VALUES 15 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 710 °C	PREDICTED ACM 421 °C	PREDICTED BS 546 °C
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Mechanical properties

15 values across 2 conditions

NORMALIZED	REH N/mm ²	RM N/mm ²	A %
≤ 16	355	—	—
16 – 40	345	—	—
40 – 60	335	—	—
≤ 60	—	490–630	22
60 – 100	315	470–610	—
60 – 250	—	—	21
100 – 150	305	460–600	—
150 – 250	295	450–590	—
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %
Hot-rolled	490–610	275–325	17–23

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
Normalizing	Temperature not stated	—

Designations across standards

74 designations · 12 documented as identical

United States	30	Japan	6
K 12447	uns	SM490A	jis
K01600 This grade's own name	uns	SM490B	jis
K02007 This grade's own name	uns	SM490C	jis
K02700 This grade's own name	uns	SM490YA	jis
K02701	uns	SM490YB	jis
K02803 This grade's own name	uns	STK490	jis
K02900	uns		
K03009 This grade's own name	uns	Spain	4
K03300 This grade's own name	uns	AE355DD	une
K11803 This grade's own name	uns	AE355KG	une
K12000 This grade's own name	uns	DD	une
K12001	uns	P355N	une
K12037 This grade's own name	uns		
K12211	uns	Europe	3
K12437	uns	1.0562	din-en
K12447	uns	P355N This grade's own name	din-en
K12609	uns	StE 355 This grade's own name	din-en
A537CL1	aisi-sae		
A588	aisi-sae	United Kingdom	3
A633 (C)	aisi-sae	223Gr.490	bs
A633Gr.C	aisi-sae	50DD	bs
A852	aisi-sae	P355N	bs
K01600	aisi-sae		
K02700	aisi-sae	Italy	3
K02701	aisi-sae	FeE355KG	uni
K02803	aisi-sae	FeE355KKW	uni
K11430	aisi-sae	P355N	uni
A 694 Grade F52	astm		
A 860 Grade WPHY52	astm	Finland	3
A633	astm	Fe355DP	sfs
		RAEX355N	sfs
		RAEX384P	sfs
France	10		
A510AP	afnor	Russia / CIS	2
E355R	afnor	15GF	gost
E355R/FP	afnor	15ГФ	gost
FeE355KGN	afnor		
FP	afnor	Sweden	2
P355N	afnor	2106	ss
S355M	afnor	2132	ss
S355ML	afnor		
S355N	afnor	Bulgaria	2
S355NL	afnor	10G2SBSBB	bds
		10G2SFTSFT	bds
		International	1
		E355	iso

China	1	Romania	1
20	gb	OCS355.5a	stas
Poland	1	South Korea	1
18G2A	pn	SM490B This grade's own name	ks
Hungary	1		
52D	msz		

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 223Gr.490

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	1.0562	Aug 20, 2026