

MATERIAL NUMBER 1.0546 · CLASS 1.0

Q345E

Material no. 1.0546

also listed as S355NL

Chemical composition, mechanical and physical property values, and 15 standard designations from 8 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 15 in 8 regions	PROPERTY VALUES 15 on file
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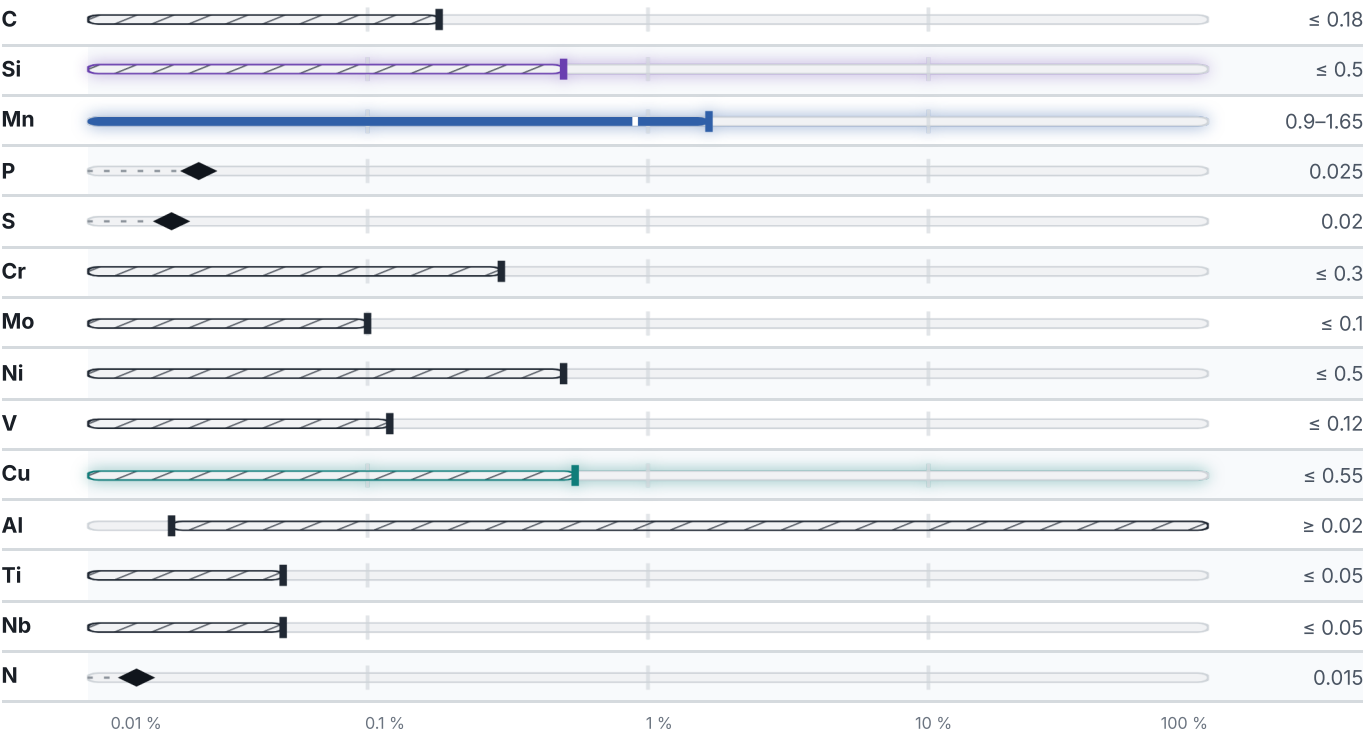
Chemical composition

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 812 °C	PREDICTED AE1 711 °C	PREDICTED ACM 421 °C	PREDICTED BS 547 °C
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Mechanical properties

17 values across 1 conditions

CONDITION · DIMENSION	REH N/mm²	RM N/mm²	A %
≤ 16	355	–	22
16 – 40	345	–	22
40 – 63	335	–	22
63 – 80	325	–	21
80 – 100	315	–	–
80 – 200	–	–	21
≤ 100	–	470–630	–
100 – 200	–	450–600	–
100 – 150	295	–	–
150 – 200	285	–	–
200 – 250	275	450–600	21

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

15 designations · 4 documented as identical

Europe	4	France	2
A633Gr.D	din-en	E355FP	afnor
FeE355KTN	din-en	E355FR	afnor
S355NL This grade's own name	din-en		
TStE 355 This grade's own name	din-en	United Kingdom	1
		50EE	bs
United States	4	Spain	1
K12000 This grade's own name	uns	AE355KT	une
K12037 This grade's own name	uns		
A633Gr.C	aisi-sae	China	1
A633Gr.D	aisi-sae	Q345E	gb

Italy	1	Sweden	1
FeE355KTN	uni	2135-01	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 Q345E

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	1.0546	Aug 20, 2026