

MATERIAL NUMBER 1.0595 · CLASS 1.0

Fe510-DD

Material no. 1.0595

also listed as S355K2

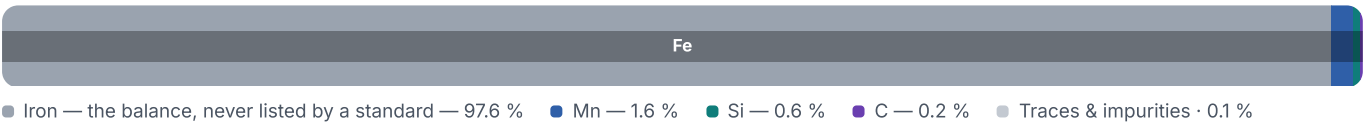
Chemical composition, mechanical and physical property values, and 11 standard designations from 8 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 11 in 8 regions	PROPERTY VALUES 6 on file
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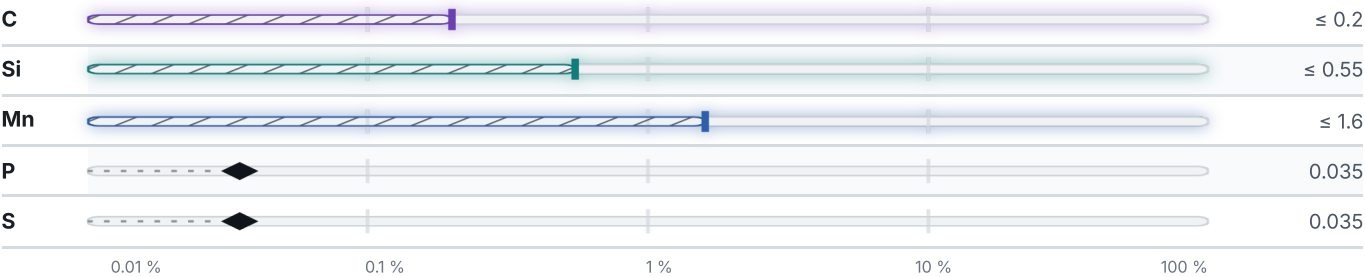
Chemical composition

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: Ni, Cr, Mo.

Mechanical properties

26 values across 3 conditions

FLAT AND LONG PRODUCTS	REH N/mm ²	RM N/mm ²
≤ 3	—	510–680

FLAT AND LONG PRODUCTS	REH N/mm ²	RM N/mm ²	
3 – 100	–	470–630	
≤ 16	355	–	
16 – 40	345	–	
40 – 63	335	–	
63 – 80	325	–	
80 – 100	315	–	
100 – 150	295	450–600	
150 – 250	–	450–600	
150 – 200	285	–	
200 – 250	275	–	
250 – 400	–	450–600	
CONDITION · DIMENSION	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So	
≤ 1	14	–	
1– 1.5	15	–	
1.5 – 2	16	–	
2 – 2.5	17	–	
2.5 – 3	18	–	
3 – 40	–	22	
40 – 63	–	21	
63 – 100	–	20	
100 – 150	–	18	
150 – 250	–	17	
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %
Hot-rolled	490–610	325–365	15–21

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

11 designations · 3 documented as identical

Europe	4	Japan	1
Fe510DD1	din-en	SM490YB	jis
S355K2 This grade's own name	din-en	Portugal	1
S355K2(+N)	din-en	Fe510-DD	np
S355K2G3 This grade's own name	din-en		
United Kingdom	1	South Africa	1
50DD	bs	350WD	sans
France	1	Belgium	1
E36-4	afnor	AE355-DD	nbn
		South Korea	1
		SM490YB This grade's own name	ks

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 Fe510-DD

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	1.0595	Aug 20, 2026