

MATERIAL NUMBER 1.0976 · CLASS 1.0

1.0976

Chemical composition, mechanical and physical property values, and 15 standard designations from 9 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 15 in 9 regions	PROPERTY VALUES 10 on file
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Chemical composition

Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.4 % ● Mn — 1.5 % ● Si — 0.5 % ● V — 0.2 % ● Traces & impurities · 0.4 %

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

5 values across 2 conditions

CONDITION · DIMENSION	A80	A
	% · Lo = 80 mm	% · Lo = 5,65 √So
≤ 3	19	–
≥ 3	–	23

CONDITION · DIMENSION	RM	RE	A
	N/mm ²	N/mm ²	%
Plate/Sheet Hot-rolled	540	355	21–24

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

15 designations · 5 documented as identical

United States	4	Spain	1
Gr.50	aisi-sae	AE390HC	une
A1008 This grade's own name	astm		
A1011 Grade 50 Class 1 This grade's own name	astm	International	1
A1011 Grade 50 Class 2 This grade's own name	astm	FeE355	iso
Europe	2	Japan	1
QStE 360 TM This grade's own name	din-en	SPFH540	jis
S355MC This grade's own name	din-en		
United Kingdom	2	Italy	1
46F35	bs	FeE355TM	uni
46F40	bs		
France	2	Sweden	1
E355D	afnor	2642	ss
E390D	afnor		

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 1.0976

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

Start an enquiry

DATASHEET ONLINE

View the material page

GRADE SEARCH

Search all grades

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ISSUED

Aug 20, 2026