

MATERIAL NUMBER 1.7139 · CLASS 1.7

1.7139

Chemical composition, mechanical and physical property values, and 20 standard designations from 11 regions.

DENSITY 7.76 g/cm³	OTHER DESIGNATIONS 20 in 11 regions	PROPERTY VALUES 7 on file
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Chemical composition

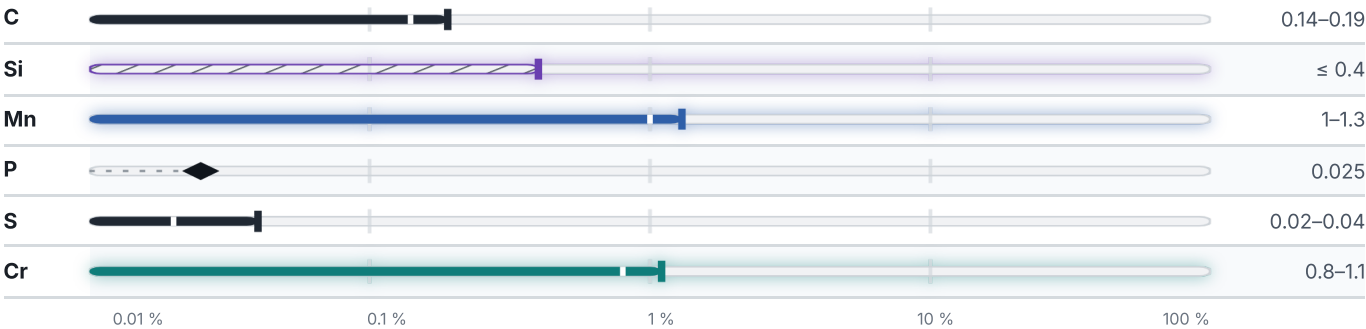
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.3 % ● Mn — 1.2 % ● Cr — 1 % ● Si — 0.4 % ● Traces & impurities · 0.2 %

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, Mo.

Mechanical properties

5 values across 5 conditions

SOFT ANNEALED	HB
Soft annealed	207

TREATED TO HARDNESS RANGE	HB
Treated to hardness range	156–207
TREATED TO FERRITE-PEARLITE STRUCTURE AND HARDNESS RANGE	HB
Treated to ferrite-pearlite structure and hardness range	140–187
NORMALIZED	HB
Normalized	138–187
CONDITION · DIMENSION	RM N/mm ²
200	1000

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.76	g/cm ³

Designations across standards

20 designations · 3 documented as identical

International	5	Europe	1
16MnCr5	iso	16MnCrS5	This grade's own name din-en
16MnCrS5	iso		
20MnCr5	iso	Spain	1
20MnCrS5	iso	16MnCr5-1	une
21MnCr5	iso		
United States	4	Russia / CIS	1
G51150	uns	18ChG	gost
G51170	This grade's own name uns	Italy	1
G51200	uns	16MnCr5	uni
5117	This grade's own name aisi-sae	Sweden	1
France	2	SS2127	ss
16MC5	afnor		
20MC5	afnor	Czechia	1
Poland	2	14 220	csn
16HG	pn	Serbia	1
20HG	pn	Č.4381	srps

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 1.7139

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

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ISSUED

Aug 20, 2026