

MATERIAL NUMBER 1.7139 · CLASS 1.7

16MnCr5-1

Material no. 1.7139

also listed as 16MnCrS5

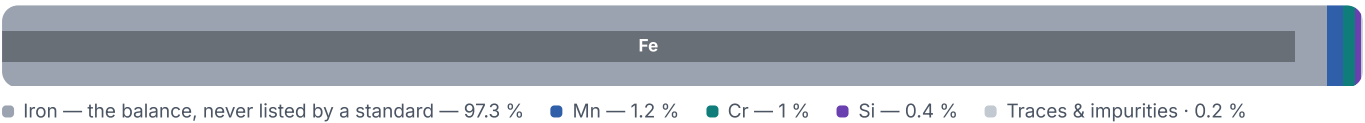
Chemical composition, mechanical and physical property values, and 20 standard designations from 11 regions.

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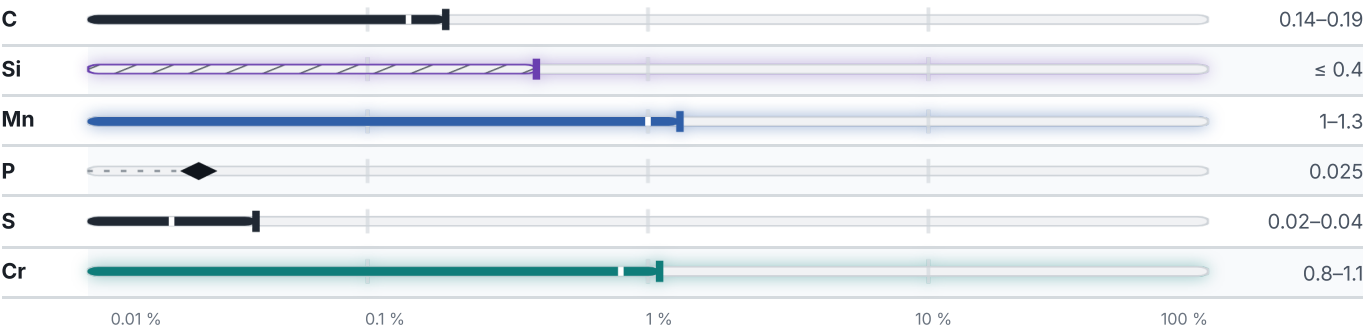
Chemical composition

Mass fraction in %

What this alloy is



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

Czechia	1	Serbia	1
14 220	csn	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 16MnCr5-1

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	1.7139	Aug 20, 2026