

MATERIAL NUMBER 1.7006 · CLASS 1.7

42C2

Material no. 1.7006

also listed as 46Cr2

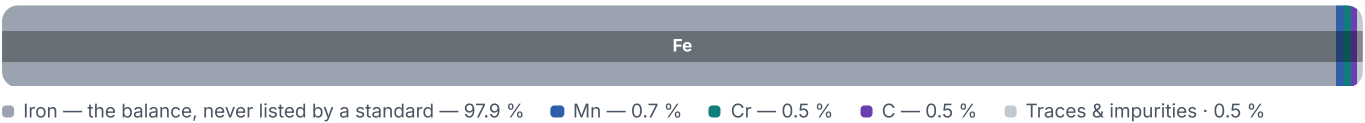
Chemical composition, mechanical and physical property values, and 13 standard designations from 5 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 13 in 5 regions	PROPERTY VALUES 7 on file
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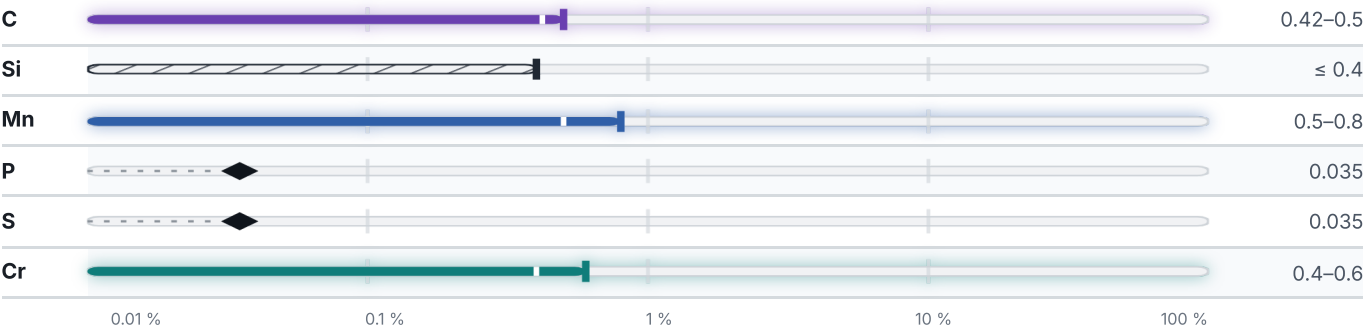
Chemical composition

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 3 conditions

QUENCHED AND TEMPERED · ROUND PRODUCTS		A
		% · Lo = 5,65 √So
≤ 16		12
16 – 40		14
40 – 100		15
TREATED TO IMPROVE SHEARABILITY		HB
Treated to improve shearability		255
SOFT ANNEALED		HB
Soft annealed		223

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

13 designations · 7 documented as identical

United States		7	France		3	
G50460	This grade's own name	uns	42C2		afnor	
G51500		uns	45 C 2		afnor	
H51500	This grade's own name	uns	46Cr2		afnor	
5045	This grade's own name	aisi-sae	Europe			1
5046	This grade's own name	aisi-sae				
5150	This grade's own name	aisi-sae	46Cr2	This grade's own name	din-en	
5150H	This grade's own name	aisi-sae	Latin America			1
			5150		copant	
			Serbia			1
			Č.4133		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 42C2

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

[Start an enquiry](#)

DATASHEET ONLINE

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GRADE SEARCH

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ISSUED

Aug 20, 2026