

MATERIAL NUMBER 1.2241 · CLASS 1.2

1.2241

Chemical composition, mechanical and physical property values, and 12 standard designations from 8 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 12 in 8 regions	PROPERTY VALUES 8 on file
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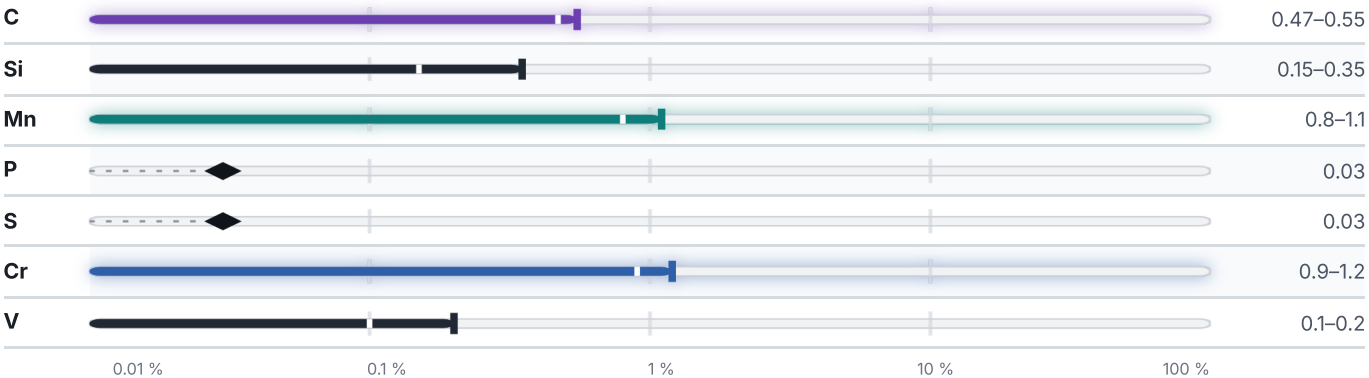
Chemical composition

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

12 values across 6 conditions

QUENCHED AND TEMPERED · ROUND PRODUCTS	A % · Lo = 5,65 √So
≤ 16	9

QUENCHED AND TEMPERED · ROUND PRODUCTS		A % · Lo = 5,65 √So
16 – 40		10
40 – 100		12
100 – 160		13
160 – 250		13
SOFT ANNEALED	RM N/mm²	A80 %
0.3 – 3	700	13
SOFT ANNEALED	HB	HV
Soft annealed	248	220
TREATED TO IMPROVE SHEARABILITY		HB
Treated to improve shearability		280
ANNEALED TO ACHIEVE SPHEROIDIZATION OF THE CARBIDES		HB
Annealed to achieve spheroidization of the carbides		230
QUENCHED AND TEMPERED		HV
Quenched and tempered		370–550

Physical properties			1 values
PROPERTY	VALUE	UNIT	
Density	7.85	g/cm³	

Designations across standards			12 designations · 5 documented as identical
Europe	3	France	1
50CrV4 This grade's own name	din-en	50CV4	afnor
51CrMnV4 This grade's own name	din-en		
51CrV4 This grade's own name	din-en	United States / Aerospace	1
		6448	ams
United States	3	Japan	1
G61500 This grade's own name	uns	SUP10	jis
6150 This grade's own name	aisi-sae		
A331	astm	China	1
United Kingdom	1	50CrVA	gb
735A30	bs		

Russia / CIS	1
50XΦA	gost

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 1.2241
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	1.2241	Aug 20, 2026