

MATERIAL NUMBER 1.7223 · CLASS 1.7

K14047

Material no. 1.7223

also listed as 41CrMo4

Chemical composition, mechanical and physical property values, and 30 standard designations from 13 regions.

DENSITY

7.72 g/cm³

OTHER DESIGNATIONS

30 in 13 regions

PROPERTY VALUES

15 on file

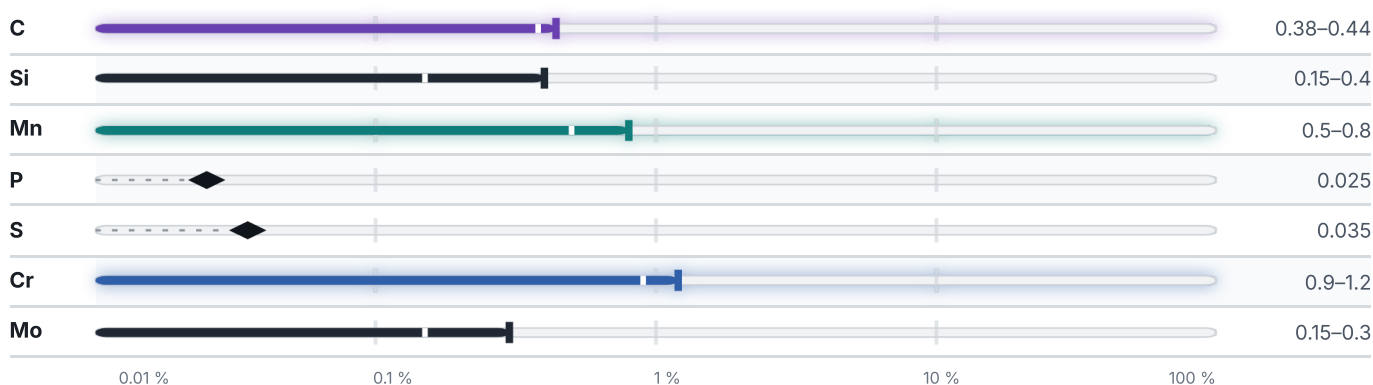
Chemical composition

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.

Mechanical properties

16 values across 3 conditions

QUENCHING AND DRAWING	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
100 - 300	615	395	15	40	540
300 - 500	615	395	13	35	490
QUENCHING AND DRAWING	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 25	880	735	10	50	880
CONDITION · DIMENSION					HB
(annealing) , GOST 4543-71					241

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)
20	7.81	215	–	37	–
100	–	212	12.1	37	466
200	–	205	12.6	37	508
300	–	199	13	36	529
400	–	182	13.3	33	563
500	–	173	13.8	31	592
600	–	166	14.2	31	621
700	–	144	14.6	30	634
800	–	135	11.8	28	664
PROPERTY			VALUE	UNIT	
Density			7.72	g/cm ³	
Transformation point Ac1			760	°C	
Transformation point Ac3			800	°C	
Transformation point Ar3			725	°C	
Transformation point Ar1			680	°C	

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	
Flake sensitivity	predisposed	

PROPERTY	VALUE	UNIT
Temper brittleness	predisposed	

Designations across standards

30 designations · 4 documented as identical

United States		7	Europe		2
G41420	This grade's own name	uns	1.7223		din-en
K14047	This grade's own name	uns	41CrMo4	This grade's own name	din-en
4140		aisi-sae	Czechia		2
4140 4142		aisi-sae			
4142	This grade's own name	aisi-sae	15142		csn
6135		aisi-sae	15240		csn
G41400		aisi-sae	France		1
United Kingdom		5	42CD4TS		afnor
19A		bs	Japan		1
3111-5/1		bs			
42CrMO4		bs	SCM 440		jis
708M40		bs	China		1
EN19A		bs	40CrMoA		gb
Spain		4	Italy		1
40CrMo4		une	41CrMo4		uni
42CrMo4		une			
F.1252		une	Sweden		1
F.8332		une	2244		ss
Russia / CIS		3	Bulgaria		1
40ChFA		gost	40ChFA		bds
40KHFA		gost	Belgium		1
40XΦA		gost	41CrMo4		nbn

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 K14047

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	1.7223	Aug 20, 2026