SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.7223 · CLASS 1.7

15240

Material no. 1.7223

also listed as 41CrMo4

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

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.72 g/cm³	30 in 13 regions	15 on file

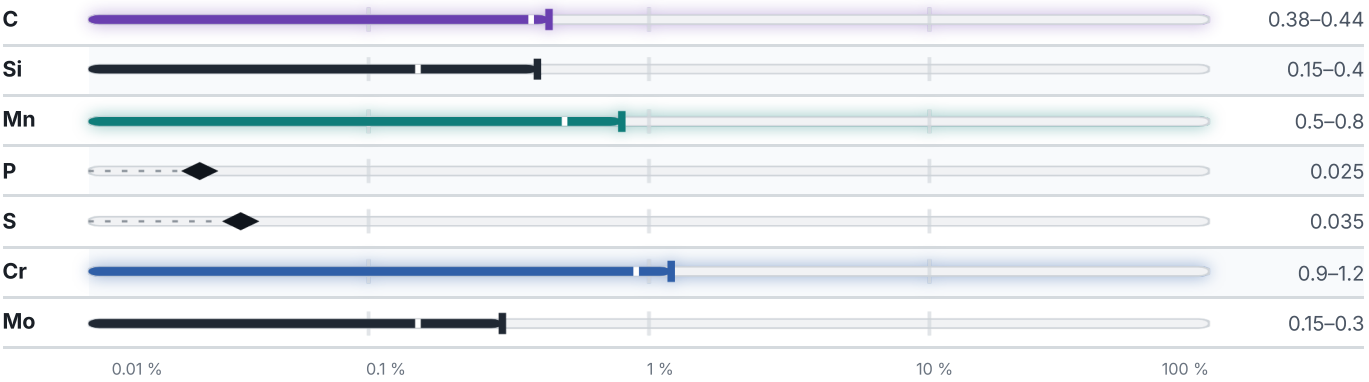
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 97.3 % · Cr — 1.1 % · Mn — 0.7 % · C — 0.4 % · Traces & impurities · 0.6 %

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/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
100 - 300	615	395	15	40	540
300 - 500	615	395	13	35	490

QUENCHING AND DRAWING	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
Ø 25	880	735	10	50	880

CONDITION · DIMENSION	HB
(annealing) , GOST 4543-71	241

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm³	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/cm³
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

G41420 This grade's own name	uns
K14047 This grade's own name	uns
4140	aisi-sae
4140 4142	aisi-sae
4142 This grade's own name	aisi-sae
6135	aisi-sae
G41400	aisi-sae

United Kingdom 5

19A	bs
3111-5/1	bs
42CrMO4	bs
708M40	bs
EN19A	bs

Spain 4

40CrMo4	une
42CrMo4	une
F.1252	une
F.8332	une

Russia / CIS 3

40ChFA	gost
40KHFA	gost
40ХФА	gost

Europe 2

1.7223	din-en
41CrMo4 This grade's own name	din-en

Czechia 2

15142	csn
15240	csn

France 1

42CD4TS	afnor

Japan 1

SCM 440	jis

China 1

40CrMoA	gb

Italy 1

41CrMo4	uni

Sweden 1

2244	ss

Bulgaria 1

40ChFA	bds

Belgium 1

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.

DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	1.7223	Aug 20, 2026