

MATERIAL NUMBER 1.7228 · CLASS 1.7

8650H

Material no. 1.7228

also listed as 50CrMo4

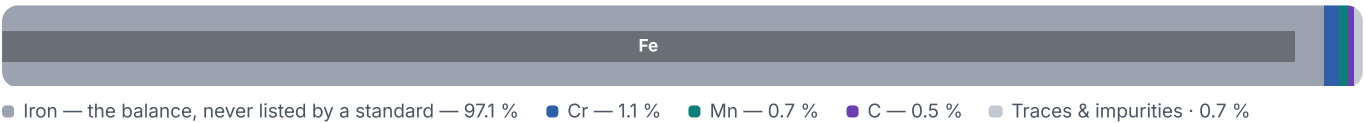
Chemical composition, mechanical and physical property values, and 29 standard designations from 12 regions.

DENSITY 7.69 g/cm ³	OTHER DESIGNATIONS 29 in 12 regions	PROPERTY VALUES 8 on file
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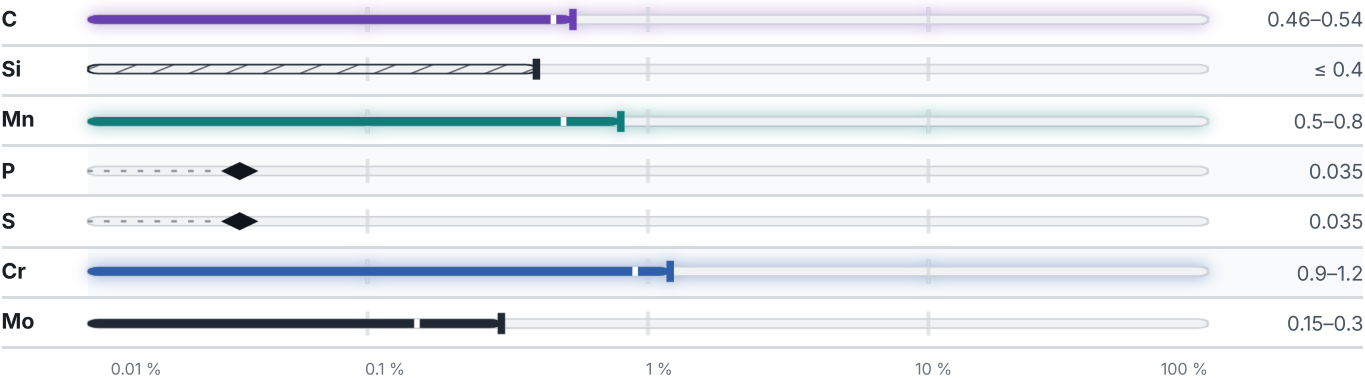
Chemical composition

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.

Mechanical properties

6 values across 2 conditions

QUENCHED AND TEMPERED · ROUND PRODUCTS		A
		% · Lo = 5,65 √So
≤ 16		9
16 – 40		10
40 – 100		12
100 – 160		13
160 – 250		13
SOFT ANNEALED		HB
Soft annealed		248

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.69	g/cm³

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—

Designations across standards

29 designations · 15 documented as identical

United States		12	United Kingdom		3
G41470	This grade's own name	uns	708A47		bs
G41500	This grade's own name	uns	708M40		bs
G86500	This grade's own name	uns	708M50		bs
H41470	This grade's own name	uns	France		2
H41500	This grade's own name	uns	50CD4		afnor
H86500	This grade's own name	uns	50CrMo4		afnor
4147	This grade's own name	aisi-sae	Japan		2
4147H	This grade's own name	aisi-sae	SCM 445H	This grade's own name	jis
4150	This grade's own name	aisi-sae	SCM445	This grade's own name	jis
4150H	This grade's own name	aisi-sae	Russia / CIS		2
8650	This grade's own name	aisi-sae	50ChM		gost
8650H	This grade's own name	aisi-sae	50KhM		gost

Czechia	2	China	1
15 XXX M	csn	50CrMo	gb
15 XXX NN	csn		
Europe	1	Poland	1
50CrMo4 This grade's own name	din-en	50H	pn
International	1	Latin America	1
50CrMo4	iso	8650	copant
		Serbia	1
		Č.4733	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 8650H

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	1.7228	Aug 20, 2026