SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.6510 · CLASS 1.6

38NCD4

Material no. 1.6510

also listed as 39NiCrMo3

Chemical composition, mechanical and physical property values, and 13 standard designations from 8 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	13 in 8 regions	9 on file

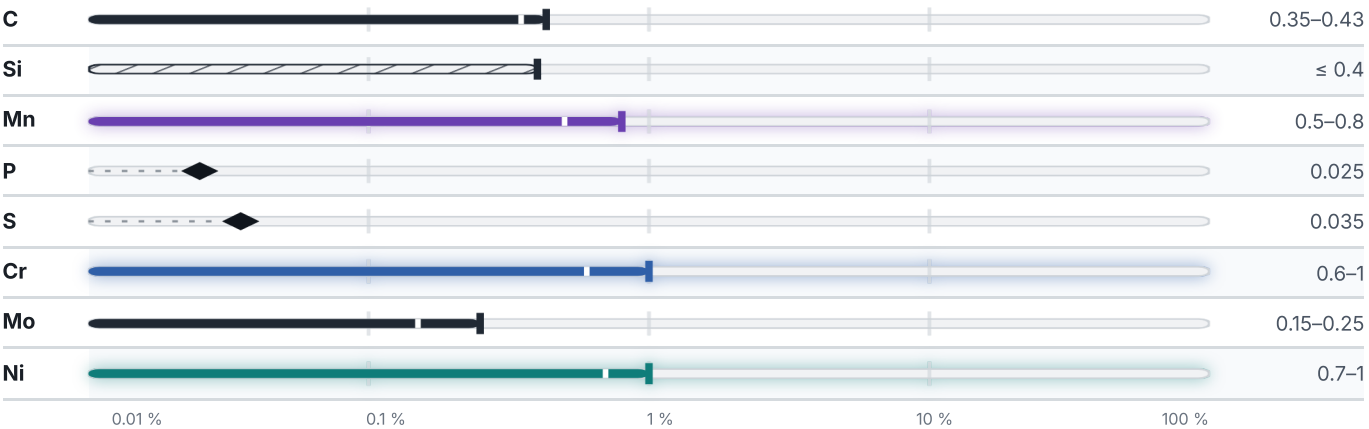
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 96.7 % · Ni — 0.9 % · Cr — 0.8 % · Mn — 0.7 % · Traces & impurities · 1.1 %

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

computed from composition · °C

PREDICTED AE3	PREDICTED AE1	PREDICTED ACM	PREDICTED BS
765 °C	729 °C	620 °C	525 °C

Mechanical properties

6 values across 2 conditions

QUENCHED AND TEMPERED · ROUND PRODUCTS	A % · Lo = 5,65 √So
≤ 16	11
16 – 40	11
40 – 100	12
100 – 160	12
160 – 250	13

SOFT ANNEALED	HB
Soft annealed	240

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

13 designations · 1 documented as identical

Russia / CIS	3
39ChNM	gost
39KhNM	gost
40ChN2MA	gost

Italy	3
38NCD4	uni
38NiCrMo4KB	uni
39NiCrMo3	uni

Spain	2
A-128	une
F-128	une

Europe	1
39NiCrMo3 This grade's own name	din-en

United Kingdom	1
816M40	bs

France	1
40NCD3	afnor

Poland	1
38HNM	pn

Hungary	1
NCMo4	msz

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	1.6510	Aug 20, 2026