

MATERIAL NUMBER 1.6546 · CLASS 1.6

8640

Material no. 1.6546

also listed as 40NiCrMo2-2

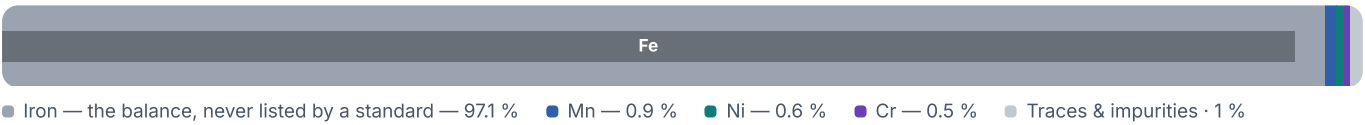
Chemical composition, mechanical and physical property values, and 43 standard designations from 13 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 43 in 13 regions	PROPERTY VALUES 9 on file
------------------------------	---	-------------------------------------

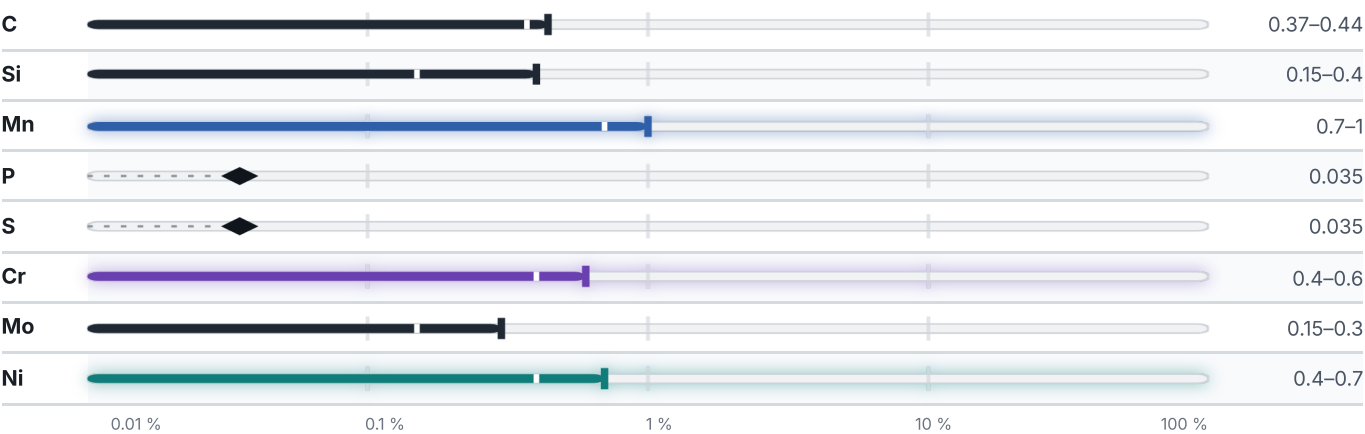
Chemical composition

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

computed from composition · °C

PREDICTED AE3 766 °C	PREDICTED AE1 722 °C	PREDICTED ACM 613 °C	PREDICTED BS 533 °C
--------------------------------	--------------------------------	--------------------------------	-------------------------------

Mechanical properties

4 values across 1 conditions

QUENCHING 840°C, OIL, DRAWING 560 - 620°C, AIR	RM N/mm ²	RE N/mm ²	A5 %	KCU kJ/m ²
Ø 25	980	835	12	880

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

43 designations · 12 documented as identical

United States		17	United Kingdom		3
G86400	This grade's own name	uns	311-Type 7		bs
G87400	This grade's own name	uns	3111-Type7		bs
G87420	This grade's own name	uns	871M40		bs
H86400	This grade's own name	uns	Italy		3
H87400	This grade's own name	uns	40NiCrMo2		uni
K11640		uns	40NiCrMo2(KB)		uni
K13049	This grade's own name	uns	KB		uni
8640	This grade's own name	aisi-sae	Europe		2
8640H	This grade's own name	aisi-sae	1.6546		din-en
8740	This grade's own name	aisi-sae	40NiCrMo2-2	This grade's own name	din-en
8740H	This grade's own name	aisi-sae	Japan		2
8742	This grade's own name	aisi-sae	SNCM240		jis
9840		aisi-sae	SNCM439		jis
G86400		aisi-sae	France		1
G98400		aisi-sae	40NCD2		afnor
4340		astm	United States / Aerospace		1
A331		astm	6322		ams
Spain		5	China		1
40NiCrMo2		une	40CrNiMoA		gb
40NiCrMo2DF		une	Poland		1
F.1204		une	37HGNM		pn
F.1204-40NiCrMo2		une	Latin America		1
F.1205		une	8640		copant
Russia / CIS		5	Belgium		1
38KHGNM		gost	40NiCrMo2		nbn
38XГHM		gost			
40KHGNM		gost			
40XHMA		gost			
40XГHM		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 8640
Quotation, availability, mill certificate or a technical question — directly on the material page.

Start an enquiry

DATASHEET ONLINE
View the material page

GRADE SEARCH
Search all grades

MATERIAL NO.
1.6546

ISSUED
Aug 20, 2026