

MATERIAL NUMBER 1.6546 · CLASS 1.6

8640H

Material no. 1.6546

also listed as 40NiCrMo2-2

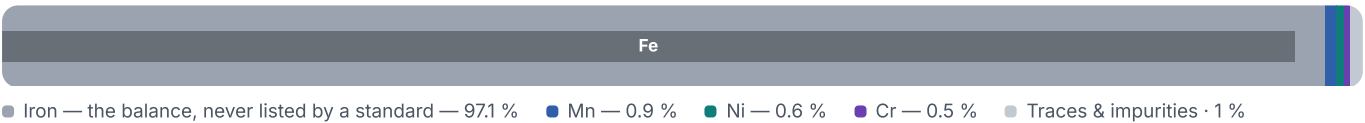
Chemical composition, mechanical and physical property values, and 43 standard designations from 13 regions.

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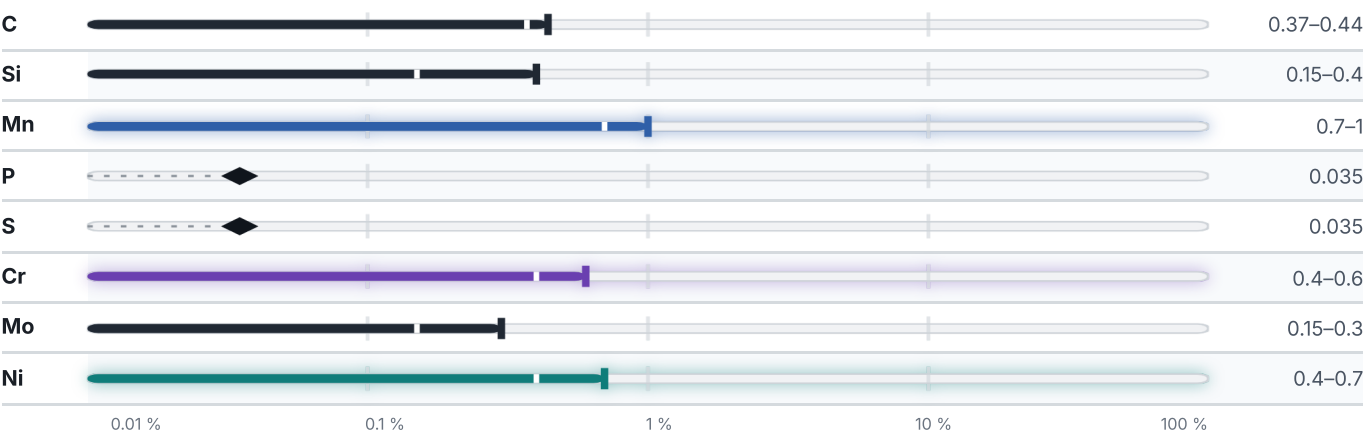
Chemical composition

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

computed from composition · °C

PREDICTED AE3 766 °C	PREDICTED AE1 722 °C	PREDICTED ACM 613 °C	PREDICTED BS 533 °C
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Mechanical properties

4 values across 1 conditions

QUENCHING 840°C, OIL, DRAWING 560 - 620°C, AIR	RM N/mm²	RE N/mm²	A5 %	KCU kJ/m²
Ø 25	980	835	12	880

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

43 designations · 12 documented as identical

United States17		United Kingdom3	
G86400	This grade's own nameuns	311-Type 7	bs
G87400	This grade's own nameuns	3111-Type7	bs
G87420	This grade's own nameuns	871M40	bs
H86400	This grade's own nameuns	Italy3	
H87400	This grade's own nameuns	40NiCrMo2	uni
K11640	uns	40NiCrMo2(KB)	uni
K13049	This grade's own nameuns	KB	uni
8640	This grade's own nameaisi-sae	Europe2	
8640H	This grade's own nameaisi-sae	1.6546	din-en
8740	This grade's own nameaisi-sae	40NiCrMo2-2	This grade's own namedin-en
8740H	This grade's own nameaisi-sae	Japan2	
8742	This grade's own nameaisi-sae	SNCM240	jis
9840	aisi-sae	SNCM439	jis
G86400	aisi-sae	France1	
G98400	aisi-sae	40NCD2	afnor
4340	astm	United States / Aerospace1	
A331	astm	6322	ams
Spain5		China1	
40NiCrMo2	une	40CrNiMoA	gb
40NiCrMo2DF	une	Poland1	
F.1204	une	37HGNM	pn
F.1204-40NiCrMo2	une	Latin America1	
F.1205	une	8640	copant
Russia / CIS5		Belgium1	
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 8640H

Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

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MATERIAL NO.
1.6546

ISSUED
Aug 20, 2026