

MATERIAL NUMBER 1.3590 · CLASS 1.3

K91231

Material no. 1.3590

also listed as M50NiL

Chemical composition, mechanical and physical property values, and 4 standard designations from 3 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 4 in 3 regions	PROPERTY VALUES 6 on file
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Chemical composition

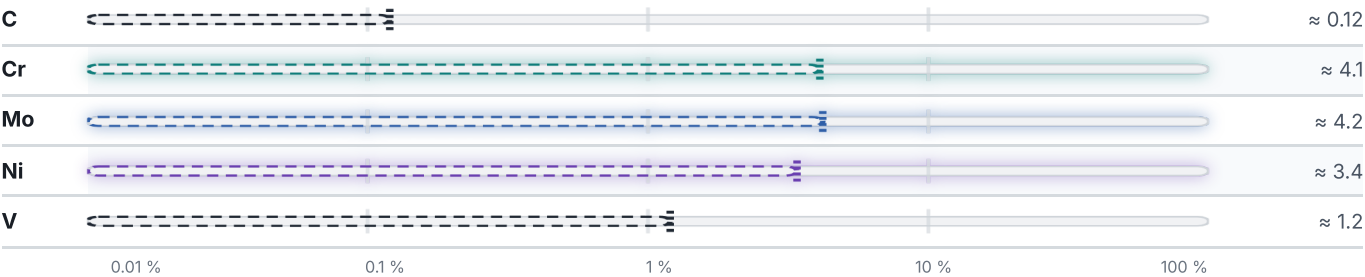
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 87 % ● Mo — 4.2 % ● Cr — 4.1 % ● Ni — 3.4 % ● Traces & impurities · 1.3 %

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: Mn, Si.

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

4 designations · 2 documented as identical

Europe		2	United States		1
13MoCrNiV42-16-14	din-en		K91231	This grade's own name	uns
M50NiL	This grade's own name	din-en	United States / Aerospace		1
			6278		ams

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 K91231

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	1.3590	Aug 20, 2026