

MATERIAL NUMBER 1.9505 · CLASS 1.9

SAE 1049

Material no. 1.9505

Chemical composition, mechanical and physical property values, and 7 standard designations from 6 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 7 in 6 regions	PROPERTY VALUES 5 on file
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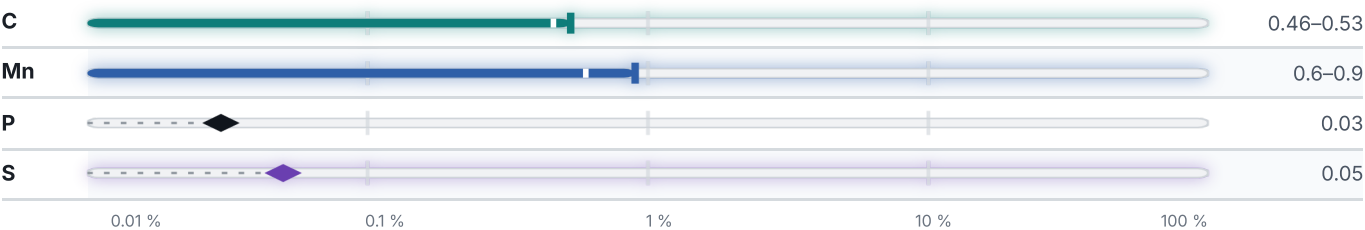
Chemical composition

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: Si, Ni, Cr, Mo.

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

7 designations · 3 documented as identical

United States	2	International	1
G10490 This grade's own name	uns	C50 C50E4 C50M2	iso
1049 This grade's own name	aisi-sae		
Europe	1	Japan	1
SAE 1049 This grade's own name	din-en	S50C	jis
United Kingdom	1	China	1
080M50 C50 C50E C50R	bs	50	gb

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 SAE 1049

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	1.9505	Aug 20, 2026