SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.7007 · CLASS 1.7

H50401

Material no. 1.7007

also listed as 37CrB1

Chemical composition, mechanical and physical property values, and 8 standard designations from 4 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	8 in 4 regions	8 on file

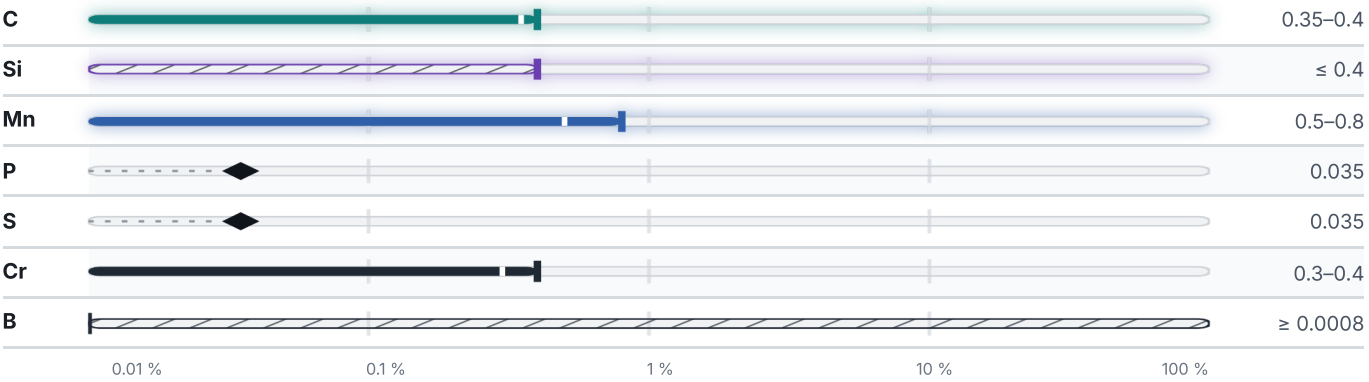
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 98.2 % · Mn — 0.7 % · Si — 0.4 % · C — 0.4 % · Traces & impurities · 0.4 %

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: Ni, Mo.

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—

Designations across standards

8 designations · 6 documented as identical

United States 4

H50401 This grade's own name	uns
50B40 This grade's own name	aisi-sae
50B40H This grade's own name	aisi-sae
50B40RH This grade's own name	aisi-sae

Europe 2

37CrB1 This grade's own name	din-en
38MnB5	din-en

United Kingdom / France 1

B 50401 This grade's own name	bsi-afnor

China 1

40MnB	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.

DATASHEET ONLINE
View the material page

GRADE SEARCH
Search all grades

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ISSUED
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