

MATERIAL NUMBER 1.7007 · CLASS 1.7

40MnB

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/cm ³	8 in 4 regions	8 on file

Chemical composition

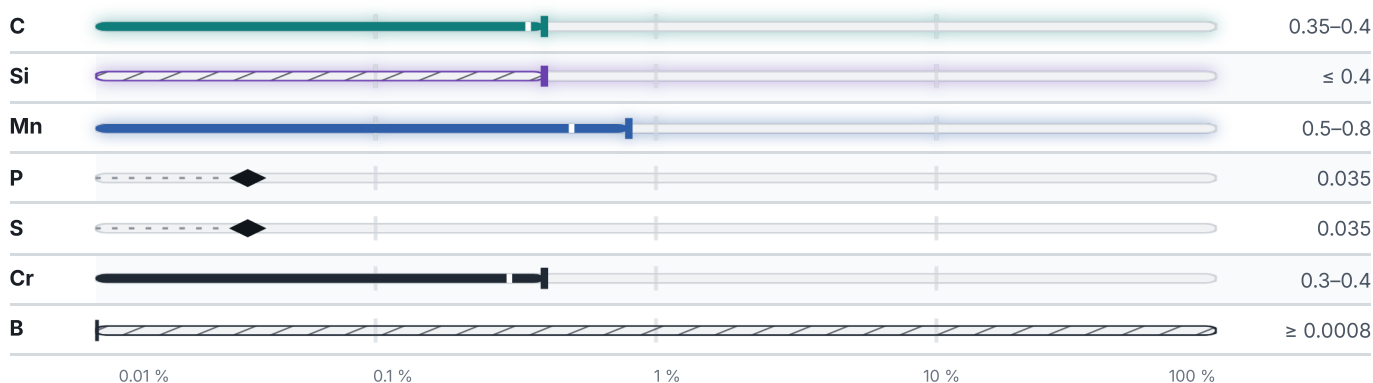
Mass fraction in %

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/cm ³

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 States4		Europe2	
H50401	This grade's own nameuns	37CrB1	This grade's own namedin-en
50B40	This grade's own nameaisi-sae	38MnB5	din-en
50B40H	This grade's own nameaisi-sae	United Kingdom / France1	
50B40RH	This grade's own nameaisi-sae	B 50401	This grade's own namebsi-afnor
		China1	
		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.

Enquiry about 40MnB

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	1.7007	Aug 20, 2026