

20XMΦБ

also listed as 20Kh1M1F1BR

Chemical composition, mechanical and physical property values, and 4 standard designations from 1 regions.

OTHER DESIGNATIONS	PROPERTY VALUES
4 in 1 regions	13 on file

Chemical composition

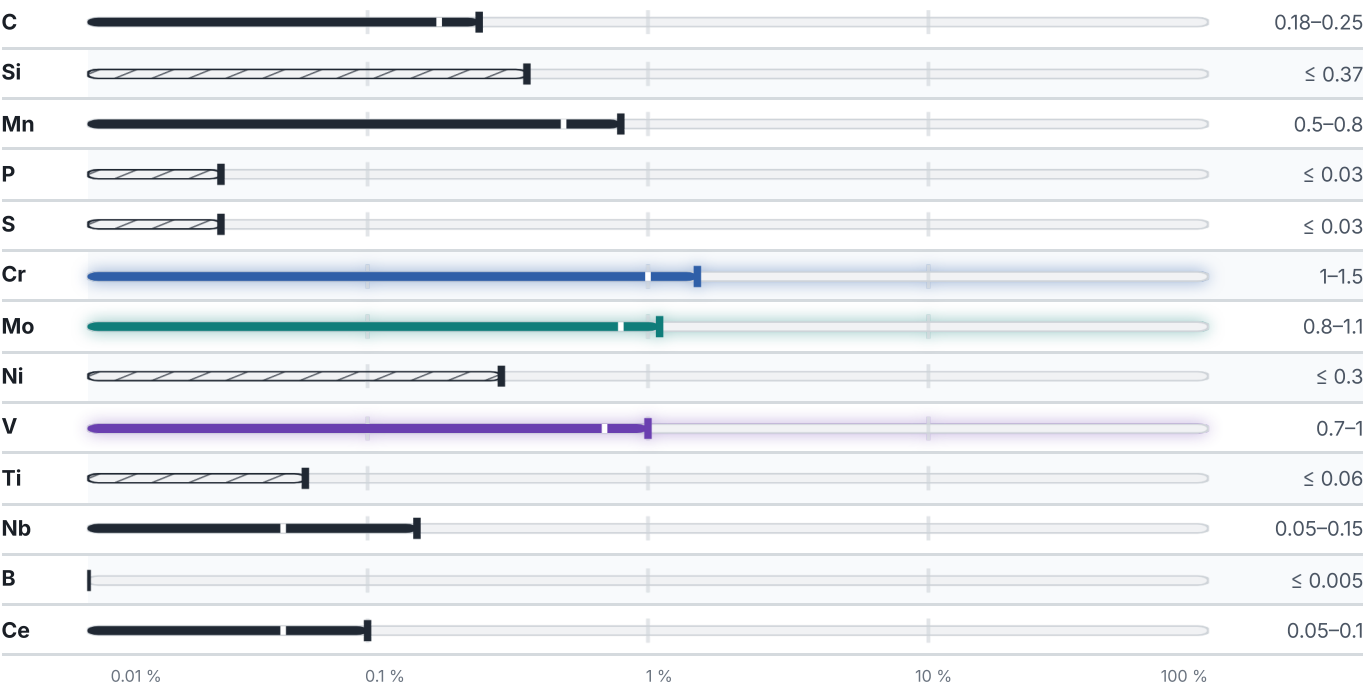
Mass fraction in %

What this alloy is



Iron — the balance, never listed by a standard — 95.1 % Cr — 1.3 % Mo — 1 % V — 0.9 % Traces & impurities · 1.8 %

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 807 °C	PREDICTED AE1 751 °C	PREDICTED ACM 516 °C	PREDICTED BS 494 °C
-------------------------	-------------------------	-------------------------	------------------------

Mechanical properties

6 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Bar, GOST 20072-74	780	665	14	50	590
CONDITION · DIMENSION					HB
20Kh1M1F1BR (20X1M1Φ1БP) (hot-rolled) , GOST 20072-74					229

Designations across standards

4 designations · 1 documented as identical

Russia / CIS	4
20Kh1M1F1BR This grade's own name	gost
20X1M1Φ1БP	gost
20XMΦБ	gost
ЭП44	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 20XMΦБ

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

Start an enquiry

DATASHEET ONLINE

View the material page

GRADE SEARCH

Search all grades

MATERIAL NO.

—

ISSUED

Aug 15, 2026