

ЭП505

also listed as 10KH7MVFBR

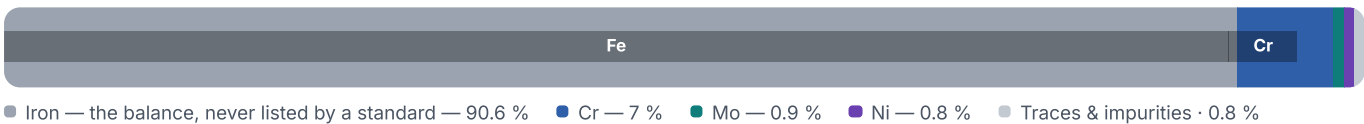
Chemical composition, mechanical and physical property values, and 3 standard designations from 1 regions.

OTHER DESIGNATIONS	PROPERTY VALUES
3 in 1 regions	13 on file

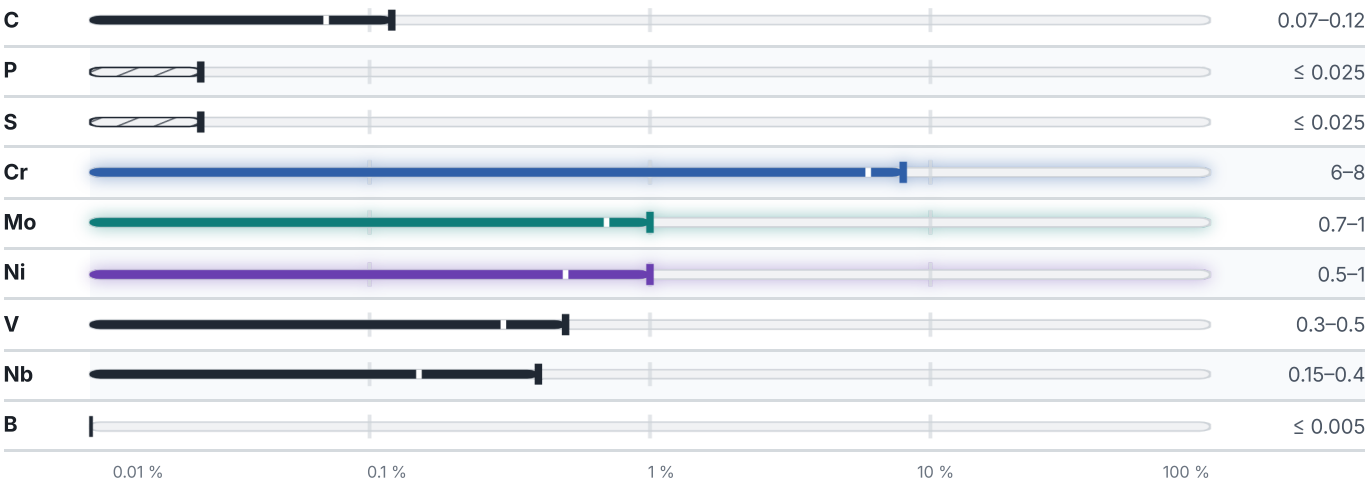
Chemical composition

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: Mn, Si.

Mechanical properties

10 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Pipe	690	580	20	65	1000
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Blank for pipe	690	610	18	59	530

Physical properties

4 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	RHO_EL nΩ·m
20	7.85	246	–	25.5	510
100	–	239.6	10.25	–	–
200	–	239	11.6	–	–
300	–	219.5	12.4	–	–
400	–	200.6	12.75	–	–
500	–	192	13.25	–	–
600	–	185	13.6	–	–
700	–	168.5	13.4	–	–
800	–	144.5	–	–	–
PROPERTY				VALUE	UNIT
Transformation point Ac1				860	°C
Transformation point Ac3				905	°C
Transformation point Ar3				435	°C
Transformation point Ar1				350	°C

Designations across standards

3 designations · 1 documented as identical

Russia / CIS	3
10KH7MVFBR This grade's own name	gost
10X7MBΦБP	gost
ЭП505	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 3П505

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

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MATERIAL NO.

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ISSUED

Aug 15, 2026