

3M659

also listed as 23Kh2NVFA

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

OTHER DESIGNATIONS	PROPERTY VALUES
3 in 1 regions	10 on file

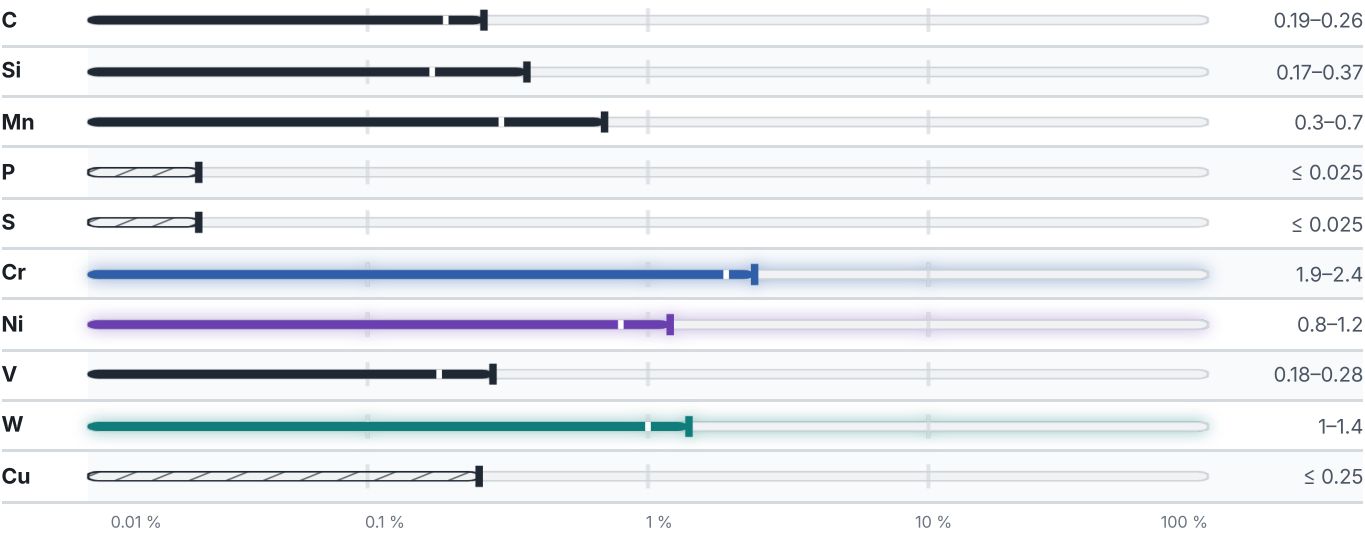
Chemical composition

Mass fraction in %



● Iron — the balance, never listed by a standard — 94.1 % ● Cr — 2.2 % ● W — 1.2 % ● Ni — 1 % ● Traces & impurities · 1.5 %

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: Mo.

Mechanical properties

15 values across 3 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Bar	1130	930	12	50	540
Sheet trick, GOST 11269-76	1130	—	9	—	390
Sheet thin, GOST 11268-76	1130	—	9	—	—

CONDITION · DIMENSION	RM N/mm ²	A5 %
Sheet trick, GOST 11269-76	490–780	17
Sheet thin, GOST 11268-76	490–780	17

CONDITION · DIMENSION	HB
23Kh2NVFA (23X2HBΦA) (normalize) , Sheet trick GOST 11269-76	170–241

Designations across standards

3 designations · 1 documented as identical

Russia / CIS	3
23Kh2NVFA This grade's own name	gost
23X2HBΦA	gost
ЭИ659	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 ЭИ659

[Start an enquiry](#)

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

DATASHEET ONLINE

View the material page

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MATERIAL NO.

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ISSUED

Aug 15, 2026