

3X19H9MB5T

also listed as 31KH19N9MVBТ

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

OTHER DESIGNATIONS	PROPERTY VALUES
4 in 1 regions	12 on file

Chemical composition

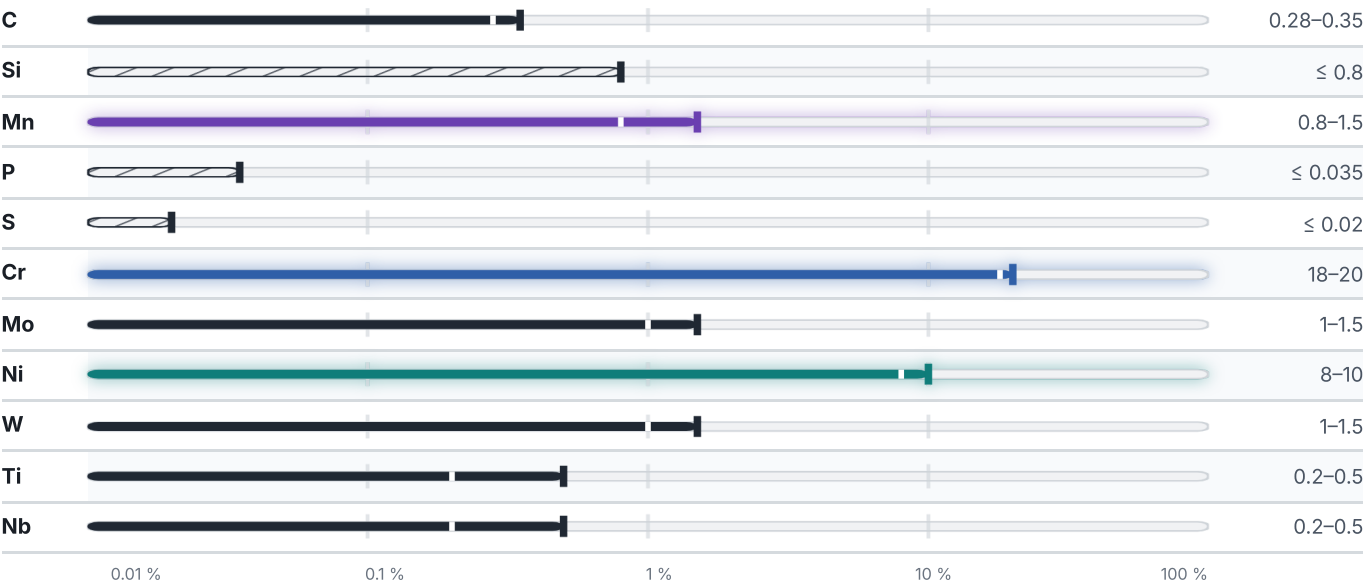
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 66.5 % ● Cr — 19 % ● Ni — 9 % ● Mo — 1.3 % ● Traces & impurities · 4.3 %

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

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

14 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Forging	700	300	35	40	600
Forging	700	300	27	30	400
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	
Bar, GOST 5949-75	590	295	30	40	

Physical properties

1 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	RHO_EL nΩ·m
20	7.96	205	–	–	–
100	–	–	–	15.1	850
200	–	–	–	16.3	900
300	–	190	–	18.4	980
400	–	185	16.02	20.05	1020
500	–	179	16.37	21.7	1080
550	–	175	–	–	–
600	–	170	16.75	23.4	1100
650	–	165	–	–	–
700	–	160	16.97	25.1	1150
800	–	–	17.94	–	–

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	

Designations across standards

4 designations · 1 documented as identical

Russia / CIS	4
31KH19N9MVBТ	This grade's own name
31X19H9MB5T	gost
3X19H9MB5T	gost
ЭИ572	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 3X19H9MB5T
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