

1X11MΦ

also listed as 15KH11MF

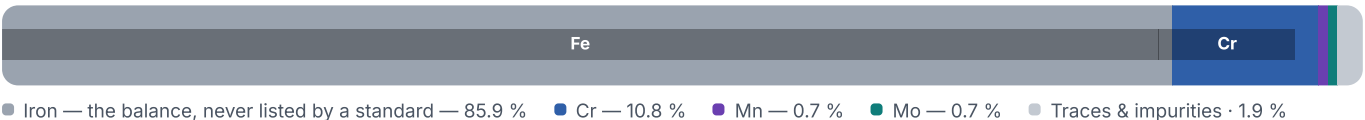
Chemical composition, mechanical and physical property values, and 3 standard designations from 1 regions.

OTHER DESIGNATIONS	PROPERTY VALUES
3 in 1 regions	11 on file

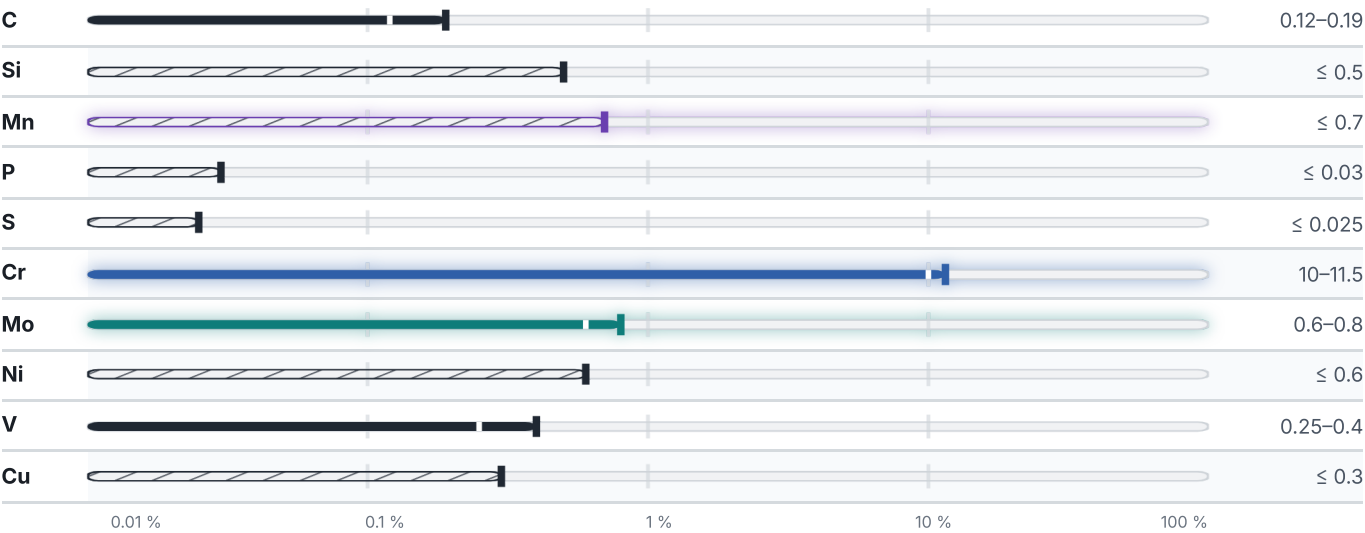
Chemical composition

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

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

12 values across 3 conditions

CONDITION · DIMENSION					HB
15KH11MF (15X11MΦ) (annealing) , Bar GOST 5949-75					229
15KH11MF (15X11MΦ) (normalize, tempering) , Bar GOST 18968-73					229-269
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Bar, GOST 5949-75	690	490	15	55	590
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Bar, GOST 18968-73	740	590-755	15	50	590

Physical properties

1 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)
20	7.85	228	—	—	—
100	—	222	10.3	—	500
200	—	213	10.6	24.4	525
300	—	205	10.8	26.1	567
400	—	193	11.3	27.2	630
500	—	180	11.7	27.6	700
600	—	—	12	28	800
700	—	—	12.2	—	—
800	—	—	12.4	—	—

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	

Designations across standards

3 designations · 1 documented as identical

Russia / CIS	3
15KH11MF This grade's own name	gost
15X11MΦ	gost
1X11MΦ	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 1X11MΦ
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.
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ISSUED
Aug 15, 2026