SteelEquivalents.com

Material datasheet
As of Aug 15, 2026

X12H20T3P

also listed as 10KH11N20T3R

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

OTHER DESIGNATIONS	PROPERTY VALUES
4 in 1 regions	10 on file

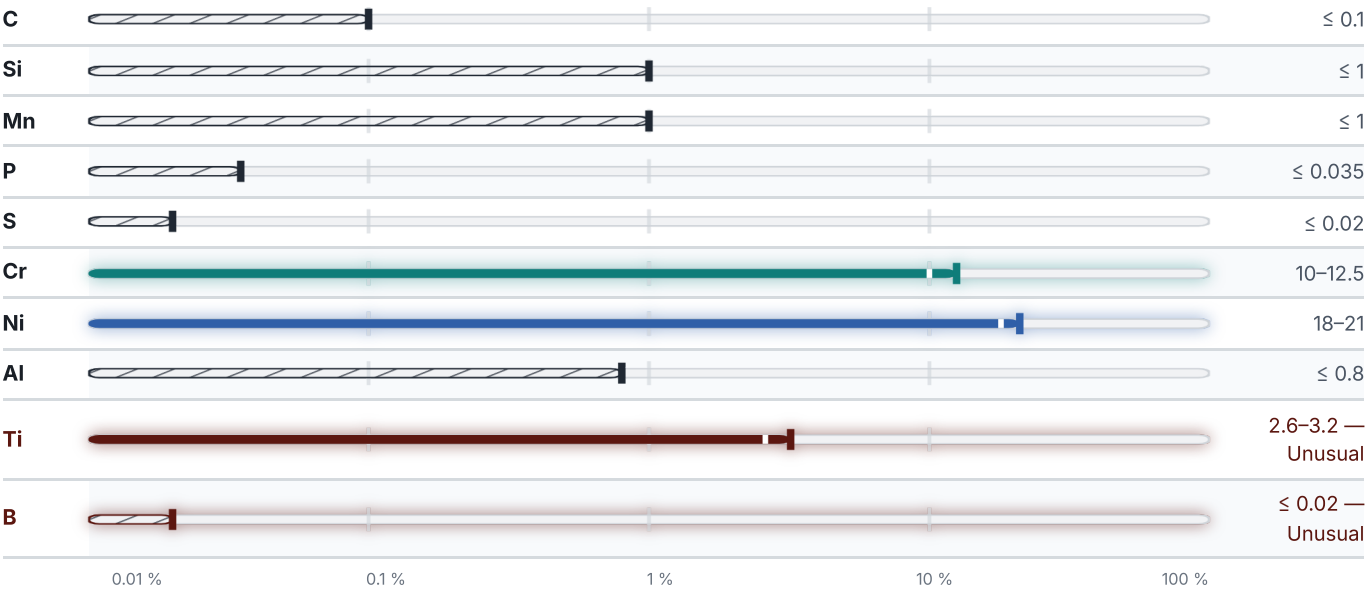
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 63.4 % · Ni — 19.5 % · Cr — 11.3 % · Ti — 2.9 % · Traces & impurities · 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

Not enough recorded composition to predict a transformation temperature for this grade — missing: Mo.

Mechanical properties

7 values across 2 conditions

CONDITION · DIMENSION	RM N/mm²	A5 %
Sheet cold-rolled	600	40

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
Bar, GOST 5949-75	880	590	10	15	290

Physical properties

0 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10^-6/K	LAMBDA W/(m·K)
20	7.9	160	–	15.2
100	–	–	15.9	16.3
200	–	–	17.4	17.5
300	–	–	18.8	18.8
400	–	140	19.9	20.5
500	–	135	20.3	22.6
600	–	132	21.1	23.8
700	–	115	21.8	25.1
800	–	113	21.6	26.8
900	–	90	21.3	28.5

Designations across standards

4 designations · 1 documented as identical

Russia / CIS	4
10KH11N20T3R This grade's own name	gost
10X11H20T3P	gost
X12H20T3P	gost
ЭИ696	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 X12H20T3P

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

Start an enquiry

DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	—	Aug 15, 2026