

MATERIAL NUMBER 1.4571 · CLASS 1.4

F.3552-X 6 CrNiMoTM 7-12-03

Material no. 1.4571

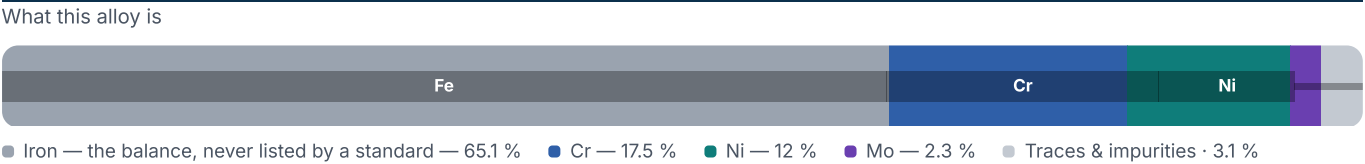
also listed as X6CrNiMoTi17-12-2

Chemical composition, mechanical and physical property values, and 72 standard designations from 17 regions.

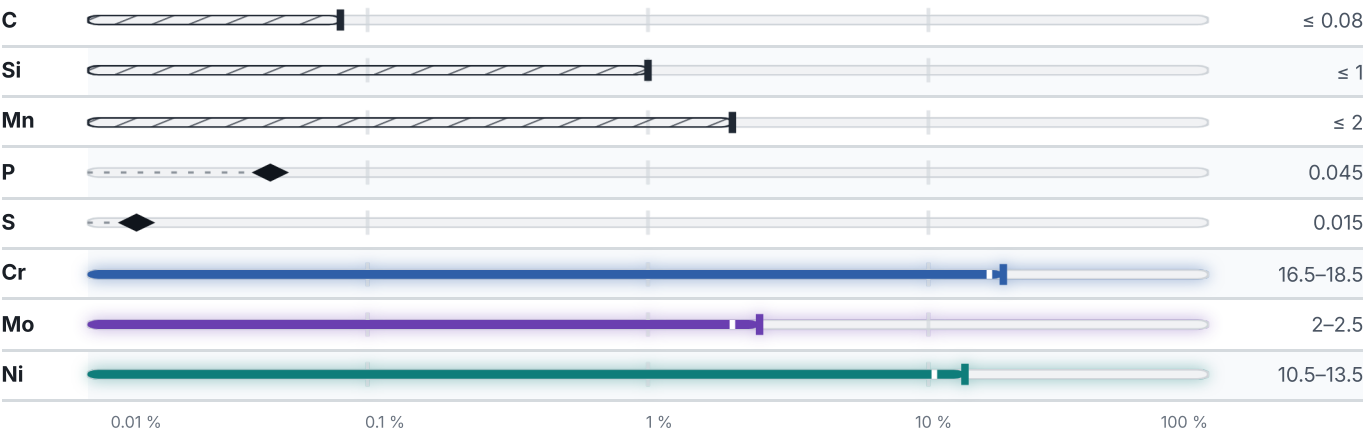
DENSITY 8 g/cm³	ELASTIC MODULUS 199 GPa	OTHER DESIGNATIONS 72 in 17 regions	PROPERTY VALUES 21 on file
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Chemical composition

Mass fraction in %



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 4 conditions

CONDITION · DIMENSION	RM N/mm²	A5 %	Z %	HB
Rolled stock hotrolled, GOST 1414-75	410	22	34	–
Rolled stock, GOST 1414-75	460–510	7	–	–
Rolled stock GOST 1414-75	–	–	–	160

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A %	HB	HRB	HV
Plate/Sheet Hot-rolled	520	205	40	–	–	–
Hot-rolled	–	–	–	187	90	200
SOFT ANNEALED						HB
Soft annealed						215
SOLUTION ANNEALED						HB
Solution annealed						210

Physical properties

13 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10 ^{^-6} /K	LAMBDA W/(m·K)	CP J/(kg·K)
20	7.83	198	–	–	–
100	–	183	11.9	78	470
200	–	–	12.5	67	–
300	–	166	–	–	479
400	–	–	13.6	–	517
500	–	–	14.2	–	–
600	–	–	–	–	571
PROPERTY				VALUE	UNIT
Density				8	g/cm³
Elastic modulus				199	GPa
Thermal expansion coefficient				15.7	10 ^{^-6} /K
Thermal conductivity				15	W/(m·K)

PROPERTY	VALUE	UNIT
Specific heat capacity	500	J/(kg·K)
Electrical resistivity	750	nΩ·m
Transformation point Ac1	735	°C
Transformation point Ac3	866	°C
Transformation point Ar3	840	°C
Transformation point Ar1	685	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	is not used.	
Flake sensitivity	predisposed	
Temper brittleness	not predisposed	

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
Solution annealing	Temperature not stated	—

Designations across standards

72 designations · 2 documented as identical

Russia / CIS		12	United Kingdom		9
08Ch16N11M3T	gost		2 1		bs
08Ch17N13M2T	gost		320 S 31		bs
08KH17N13M2T	gost		320S17		bs
08X17H13M2T	gost		320S18		bs
08X17H13M2T	gost		321S12		bs
10Ch17N13M2T	gost		4 Ti		bs
10Ch17N13M3T	gost		58J		bs
10KH17N13M2T	gost		EN58J		bs
10X17H13M2T	gost		S17EN58J		bs
10X17H13M2T	gost				
X17H13M2T	gost		United States		8
ЭИ448	gost		S31635		uns
			316H		aisi-sae
			316Ti		aisi-sae
			318		aisi-sae
			S31635		aisi-sae
			A 182 Grade F316Ti		astm
			A312		astm
			TP 316Ti		astm

France	6	Europe	3
Z6 CNDT 17.12	afnor	1.4571	din-en
Z6CNDNB17-12B	afnor	X10CrNiMoTi18-10	din-en
Z6CNDT17-13	afnor	X6CrNiMoTi17-12-2	din-en
Z6CNDT17-2	afnor		
Z6CNT17-12	afnor	Italy	3
Z6NDT17-12	afnor	X6CrNiMoTi 17 12 KG	uni
		X6CrNiMoTi 17 12 KW	uni
		X6CrNiMoTi1712	uni
China	6	Sweden	3
0Cr18Ni12Mo2Ti	gb	2350	ss
0Cr18Ni12Mo3Ti	gb	2350-02	ss
1Cr18Ni12Mo2Ti	gb	2353	ss
1Cr18Ni12Mo3Ti	gb		
Cr18Ni12Mo2T	gb	Czechia	3
0Cr18Ni12Mo2Ti	gb	17347	csn
Spain	5	17347PH	csn
F.310.B	une	17348	csn
F.3535	une		
F.3552	une	Austria	2
F.3552-X 6 CrNiMoTM 7-12-03	une	X6CrNiMo17-17-122S	onorm
X6CrNiMoTi17-12-2	une	X6CrNiMoTi17-12-2S	onorm
Japan	4	Slovakia	1
316Ti	jis	17 348	stn
SUS 316Ti	jis		
SUS 316TiTB	jis	Serbia	1
SUS 316TiTP	jis	Č.4574	srps
Poland	4	former Yugoslavia	1
H17N13M2T	pn	Č.4574	jus
H17N13M2T H18N10MT	pn		
H17N13M2T lub H18N10MT	pn	Finland	1
H18N10MT	pn	761	sfs

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 F.3552-X 6 CrNiMoTM 7-12-03

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

[Start an enquiry](#)

DATASHEET ONLINE

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GRADE SEARCH

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MATERIAL NO.

1.4571

ISSUED

Sep 8, 2026