

MATERIAL NUMBER 1.4828 · CLASS 1.4

1Cr23Ni13

Material no. 1.4828

also listed as X15CrNiSi20-12

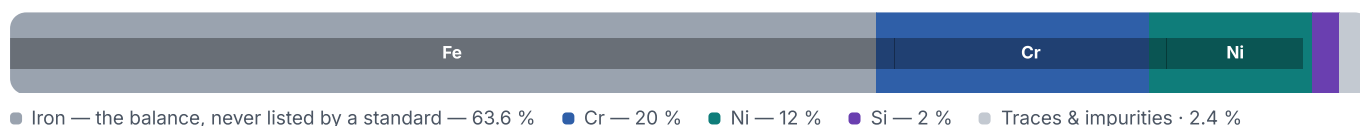
Chemical composition, mechanical and physical property values, and 77 standard designations from 19 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.9 g/cm ³	77 in 19 regions	9 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

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

Mechanical properties

14 values across 4 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	Z %	HB	HRB	HV
Bars/Rods Solution treatment	560	205	45	50	–	–	–
Solution treatment	–	–	–	–	201	95	210
SOLUTION ANNEALED							HB
Solution annealed							223
QUENCHING 1000 - 1150°C, AIR	RM N/mm ²		RE N/mm ²		A5 %		Z %
Ø 60	590		295		35		55
CONDITION · DIMENSION				RM N/mm ²	A5 %		
Sheet thin, GOST 5582-75				590	40		

Physical properties

1 values

CONDITION · DIMENSION	RHO g/cm ³	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	RHO_EL nΩ·m
20	7.8	–	–	946
100	7.76	16	15	1000
200	–	–	17	1051
300	–	–	18	1095
400	–	–	19	1130
500	–	–	21	1100
600	7.55	18.1	23	1194
700	7.51	18.3	24	1218
800	7.47	18.5	26	1242
900	7.42	18.8	28	1242
1000	–	19	–	–
PROPERTY		VALUE		UNIT
Density		7.9		g/cm ³

Designations across standards

77 designations · 2 documented as identical

United States		30	Russia / CIS		9
S20500		uns	08KH20N14S2		gost
S30900		uns	08X20H14C2		gost
S41400		uns	0X20H14C2		gost
S43023		uns	20Ch20N14S2		gost
205	aisi-sae		20KH20N14S2		gost
30309	aisi-sae		20X20H14C2		gost
309	aisi-sae		X20H14C2		gost
3U8	aisi-sae		ЭИ211		gost
414	aisi-sae		ЭИ732		gost
430FSe	aisi-sae		United Kingdom		3
51414	aisi-sae		305S19		bs
S30900	aisi-sae		309S24		bs
XM-15	aisi-sae		X15CrNiSi20-12		bs
A167	astm		United States / Aerospace		3
A264	astm		5523		ams
A276	astm		5574		ams
A314	astm		5650		ams
A403	astm		Japan		3
A409	astm		SUH 309		jis
A473	astm		SUH 309TB		jis
A479	astm		SUH 309TP		jis
A480	astm		China		3
A484	astm		1Cr20Ni14Si2		gb
A511	astm		1Cr23Ni13		gb
A580	astm		2Cr23Ni13		gb
A581	astm		Europe		2
A582	astm		1.4828		din-en
A666	astm		X15CrNiSi20-12	This grade's own name	din-en
A895	astm		Spain		2
F2281	astm		F.3312		une
France		9	X15CrNiSi20-12		une
308F80	afnor		Italy		2
Z10CNS20-12	afnor		X16CrNi23-14		uni
Z10CNS25-20	afnor		X6CrNi2520		uni
Z15CN24-13	afnor		Czechia		2
Z15CNS20.10	afnor		17251		csn
Z15CNS20.12	afnor		17256VN		csn
Z17CNS20	afnor	This grade's own name			
Z17CNS20-12	afnor				
Z9CN24-13	afnor				

Poland	2	Hungary	1
H18N9S	pn	H8	msz
H20N12S2	pn		
Slovakia	1	Romania	1
17 251	stn	15SiNiCr200	stas
Serbia	1	Bulgaria	1
Č.4577	srps	Ch20N14S2	bds
former Yugoslavia	1	South Korea	1
Č.4577	jus	STR309	ks

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 1Cr23Ni13

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

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ISSUED

Sep 8, 2026