

MATERIAL NUMBER 1.5752 · CLASS 1.5

20NC11

Material no. 1.5752

also listed as 14NiCr14

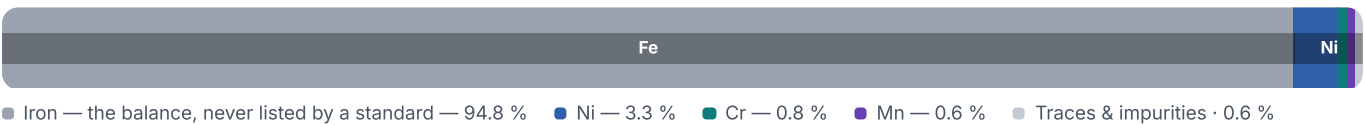
Chemical composition, mechanical and physical property values, and 53 standard designations from 15 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 53 in 15 regions	PROPERTY VALUES 15 on file
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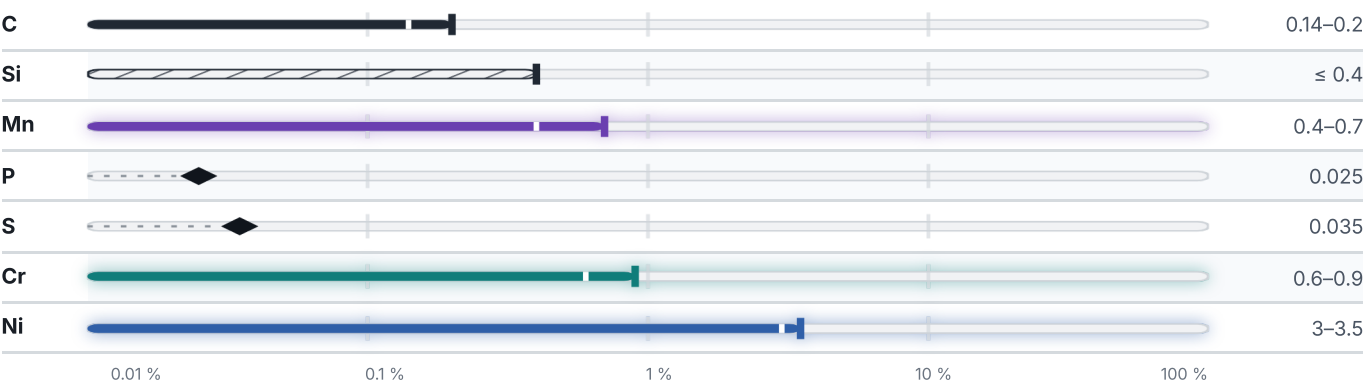
Chemical composition

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

10 values across 6 conditions

TREATED TO IMPROVE SHEARABILITY					HB
Treated to improve shearability					255
SOFT ANNEALED					HB
Soft annealed					229
TREATED TO HARDNESS RANGE					HB
Treated to hardness range					179–229
TREATED TO FERRITE-PEARLITE STRUCTURE AND HARDNESS RANGE					HB
Treated to ferrite-pearlite structure and hardness range					166–217
QUENCHING AND DRAWING	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 15	1130	930	10	50	880
CONDITION · DIMENSION					HB
(annealing) , GOST 4543-71					269

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)
20	7.84	200	–	–
100	7.82	–	11	25
200	–	–	12	–
300	7.76	–	13	–
400	7.71	–	14.7	19
500	–	–	15.3	–
600	7.63	–	15.6	–
PROPERTY	VALUE		UNIT	
Density	7.85		g/cm ³	
Transformation point Ac1	745		°C	
Transformation point Ac3	800		°C	
Transformation point Ar3	675		°C	

PROPERTY	VALUE	UNIT
Transformation point Ar1	625	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	limited weldability.	
Flake sensitivity	predisposed	
Temper brittleness	predisposed	

Designations across standards

53 designations · 9 documented as identical

United States	14	France	6
G33106 This grade's own name	uns	12NC15	afnor
3310 This grade's own name	aisi-sae	13NiCr14	afnor
3310H	aisi-sae	14 NC 11	afnor
3310RH This grade's own name	aisi-sae	14 NC 12	afnor
3312 This grade's own name	aisi-sae	16NC11	afnor
3316 This grade's own name	aisi-sae	20NC11	afnor
3415	aisi-sae		
9314	aisi-sae	United Kingdom	5
E3310	aisi-sae	36A	bs
E3310X	aisi-sae	655H13	bs
E3316 This grade's own name	aisi-sae	655M13	bs
E9315 This grade's own name	aisi-sae	A12 EN 36A	bs
G33106	aisi-sae	EN36A	bs
P 6	aisi-sae		
Russia / CIS	12	Europe	3
12ChN3A	gost	1.5752	din-en
12ChN3A-sh	gost	14NiCr14 This grade's own name	din-en
12HN3A	gost	15NiCr13 This grade's own name	din-en
12HN3A-sh	gost		
12HN3A-sz	gost	Japan	2
12KH2N4A	gost	SNC815	jis
12KhN3A	gost	SNC815H	jis
12KhN3A-sh	gost		
12XH3A-ш	gost	China	2
12XH3A	gost	12CrNi3	gb
12X2H4A	gost	20CrNi3A	gb
20XH3A	gost		
		Poland	2
		12H2N4A	pn
		12HN3A	pn
		International	1
		15NiCr13	iso

Italy	1	Serbia	1
16 NiCr 11	uni	Č.5426	srps
Czechia	1	Hungary	1
16420	csn	~BNC 2	msz
Slovakia	1	Bulgaria	1
16 420	stn	12Ch2N4A	bds

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 20NC11

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	1.5752	Aug 20, 2026