SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.5755 · CLASS 1.5

Č.5438

Material no. 1.5755

also listed as 31NiCr14

Chemical composition, mechanical and physical property values, and 18 standard designations from 10 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	18 in 10 regions	15 on file

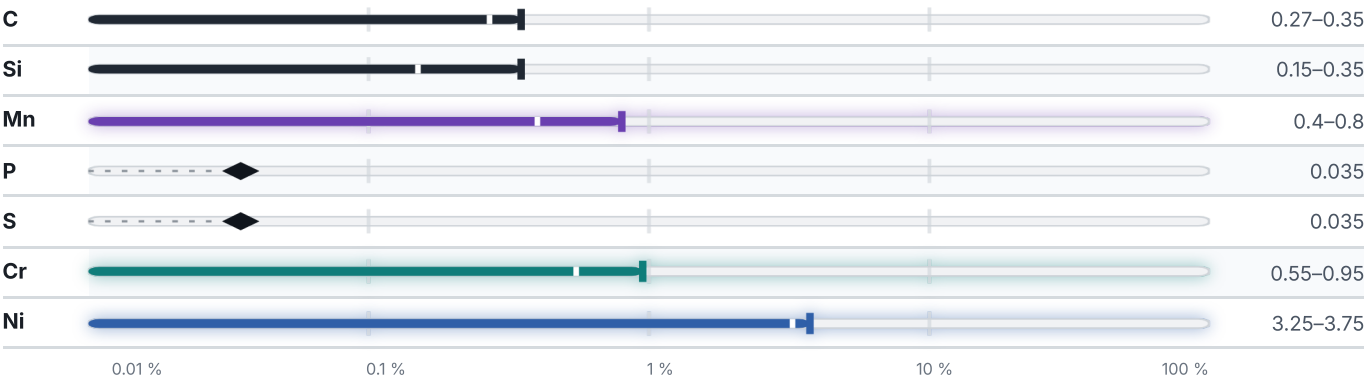
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 94.5 % · Ni — 3.5 % · Cr — 0.8 % · Mn — 0.6 % · Traces & impurities · 0.6 %

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

16 values across 3 conditions

QUENCHING 850°C, OIL, DRAWING 200°C, AIR	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
Ø 5	1670	1420	13	50	660
Ø 20	1670	1370	12	45	490
QUENCHING 820°C, OIL, DRAWING 530°C, WATER	**RM N/mm²**	**RE N/mm²**	**A5 %**	**Z %**	**KCU kJ/m²**
Ø 25	980	785	10	50	780

CONDITION · DIMENSION	HB
(annealing) , GOST 4543-71	241

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10^-6/K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.85	215	–	34	–	268
100	7.83	207	10.8	35	494	317
200	7.8	195	11.5	36	504	387
300	7.77	187	12.2	36	518	469
400	7.73	175	12.8	36	536	567
500	7.7	171	13.2	35	558	681
600	7.67	–	13.5	31	587	817
700	7.69	–	–	28	657	981
800	7.65	–	–	27	703	–
900	7.6	–	–	–	695	–
1000	–	–	–	–	687	–

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³
Transformation point Ac1	700	°C
Transformation point Ac3	800	°C
Transformation point Ar3	680	°C
Transformation point Ar1	610	°C

Technological properties

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

Designations across standards

18 designations · 1 documented as identical

Russia / CIS 5

30Kh3MA	gost
30Kh3VA	gost
30KHN3A	gost
30Х3ВА-Ш	gost
30XH3A	gost

France 4

18NC13	afnor
30NC11	afnor
30NC11FF	afnor
30NC12	afnor

Japan 2

SNC631	jis
SNC836	jis

Europe 1

31NiCr14 This grade's own name	din-en

United Kingdom 1

653M31	bs

Spain 1

F.123	une

Czechia 1

16440	csn

Poland 1

37HN3A	pn

Serbia 1

Č.5438	srps

Bulgaria 1

30ChN3A	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.

DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	1.5755	Aug 20, 2026