SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.6657 · CLASS 1.6

832M13

Material no. 1.6657

also listed as 14NiCrMo13-4

Chemical composition, mechanical and physical property values, and 40 standard designations from 14 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	40 in 14 regions	16 on file

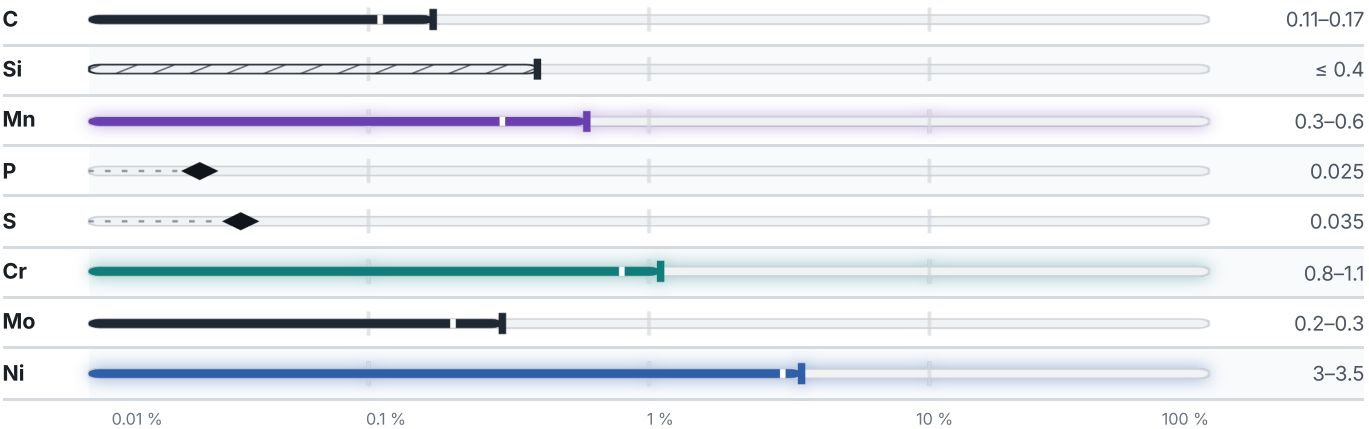
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 94.5 % · Ni — 3.3 % · Cr — 1 % · Mn — 0.4 % · Traces & impurities · 0.8 %

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

11 values across 7 conditions

TREATED TO IMPROVE SHEARABILITY	HB
Treated to improve shearability	255

SOFT ANNEALED	HB
Soft annealed	241

TREATED TO HARDNESS RANGE	HB
Treated to hardness range	187–241

TREATED TO FERRITE-PEARLITE STRUCTURE AND HARDNESS RANGE	HB
Treated to ferrite-pearlite structure and hardness range	166–217

QUENCHING AND DRAWING	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
Ø 15	1130	835	12	50	980

CONDITION · DIMENSION	HB
(annealing) , GOST 4543-71	269

CONDITION · DIMENSION	RM N/mm²
200	1200

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10^-6/K	LAMBDA W/(m·K)
20	7.95	200	–	–
100	7.93	165	11.7	36
200	7.9	141	12.2	36
300	7.86	–	12.7	35
400	7.83	139	13.1	35
500	7.8	–	13.5	34
600	7.76	–	13.9	33
700	–	–	–	32
800	–	–	–	30

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³
Transformation point Ac1	700	°C
Transformation point Ac3	810	°C
Transformation point Ar3	400	°C
Transformation point Ar1	350	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	
Flake sensitivity	predisposed	
Temper brittleness	not predisposed	

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
Soft annealing	Temperature not stated	—

Designations across standards

40 designations · 7 documented as identical

United States 10

G93106	uns
H93100 This grade's own name	uns
H93106 This grade's own name	uns
9310	aisi-sae
9310H This grade's own name	aisi-sae
9310RH This grade's own name	aisi-sae
E9310	aisi-sae
E9310H This grade's own name	aisi-sae
EX1 This grade's own name	aisi-sae
A322	astm

United Kingdom 6

36C	bs
832H13	bs
832M13	bs
835M15	bs
EN36C	bs
S157	bs

Russia / CIS 5

14ChN3M	gost
14HN3M	gost
14KhN3M	gost
18KH2N4MA	gost
18X2H4MA	gost

Spain 4

131	une
14NiCrMo131	une
F.1569	une
F.1569-14NiCrMo	une

United States / Aerospace 3

6260	ams
6265	ams
6267	ams

Europe 2

1.6657	din-en
14NiCrMo13-4 This grade's own name	din-en

France	2
16NCD13	afnor
16NiCrMo13	afnor

Italy	2
15NiCrMo13	uni
16NiCrMo12	uni

Japan	1
SNCM815	jis

Czechia	1
16720	csn

Poland	1
18H2N4WA	pn

Hungary	1
~BNCMo 2	msz

Bulgaria	1
18Ch2N4MA	bds

Austria	1
BOHLERM130	onorm

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	1.6657	Aug 20, 2026