

MATERIAL NUMBER 1.6587 · CLASS 1.6

12ChN4A

Material no. 1.6587

also listed as 17CrNiMo6

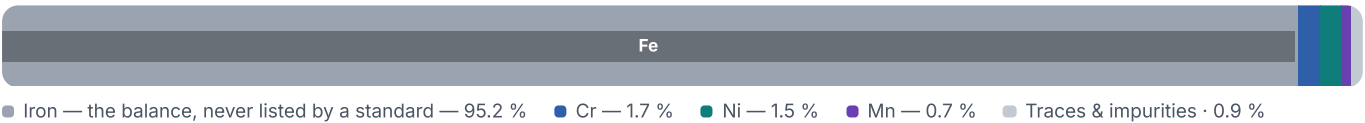
Chemical composition, mechanical and physical property values, and 41 standard designations from 15 regions.

DENSITY 7.77 g/cm³	OTHER DESIGNATIONS 41 in 15 regions	PROPERTY VALUES 14 on file
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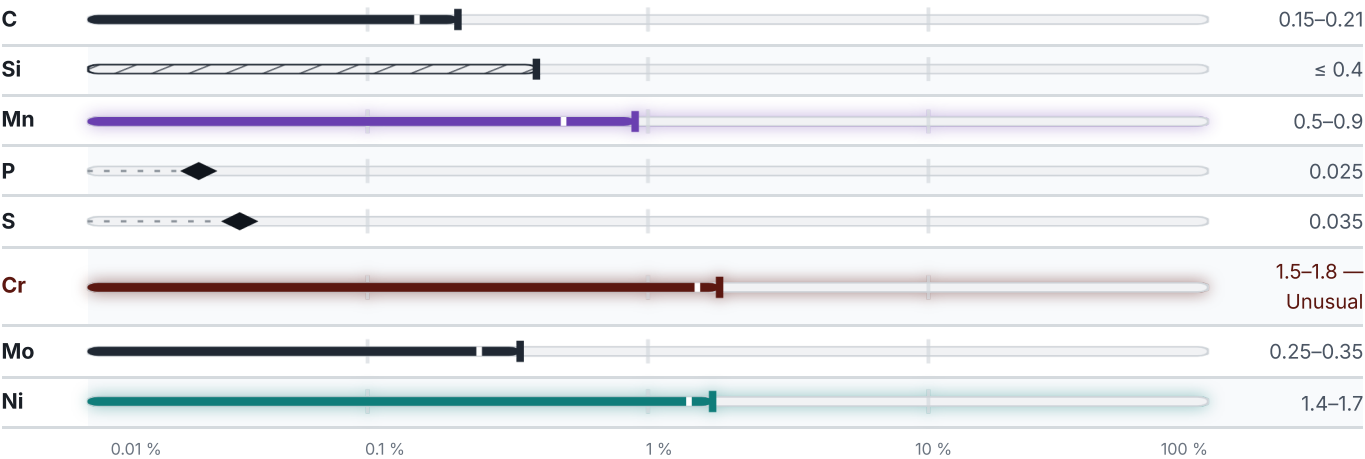
Chemical composition

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

computed from composition · °C

PREDICTED AE3 789 °C	PREDICTED AE1 737 °C	PREDICTED ACM 480 °C	PREDICTED BS 492 °C
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Mechanical properties

10 values across 6 conditions

QUENCHING AND DRAWING	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 15	880	685	11	50	780
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					159–207
CONDITION · DIMENSION					RM N/mm ²
200					1200

Physical properties

6 values

PROPERTY	VALUE	UNIT
Density	7.77	g/cm ³
Transformation point Ac1	720	°C
Transformation point Ac3	825	°C

Technological properties

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

Designations across standards

41 designations · 6 documented as identical

United States		6	Spain		3
G48200		uns	14NiCrMo13		une
4320		aisi-sae	F.1560		une
4320H		aisi-sae	F.1560-14NiCrMo13		une
4820		aisi-sae			
G43200		aisi-sae	France		2
H43200		aisi-sae	18NCD6		afnor
			18NiCrMo6		afnor
United Kingdom		6	Czechia		2
22H17	This grade's own name	bs	16326		csn
817M17	This grade's own name	bs	16326PH		csn
820A16		bs			
822A17	This grade's own name	bs	Poland		2
822M17		bs	17HGM		pn
EN355	This grade's own name	bs	17HNM		pn
Russia / CIS		6			
12ChN4A		gost	International		1
18KH2N4VA		gost	18CrNiMo7		iso
18X2H4BA		gost			
20KHN2M		gost	China		1
20XH2M		gost	17Cr2Ni2Mo		gb
20XHM		gost			
Europe		4			
1.6587		din-en	Italy		1
17CrNiMo6	This grade's own name	din-en	18NiCrMo7		uni
17CrNiMo7		din-en			
18CrNiMo7-6	This grade's own name	din-en	Latin America		1
			4820		copant
Japan		4			
SNCM415		jis	Serbia		1
SNCM420		jis	Č.4520		srps
SNCM420H		jis			
SNCM815		jis	Finland		1
			511		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 12ChN4A

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

[Start an enquiry](#)

DATASHEET ONLINE

View the material page

GRADE SEARCH

Search all grades

MATERIAL NO.

1.6587

ISSUED

Aug 20, 2026