

MATERIAL NUMBER 1.6582 · CLASS 1.6

2541

Material no. 1.6582

also listed as 34CrNiMo6

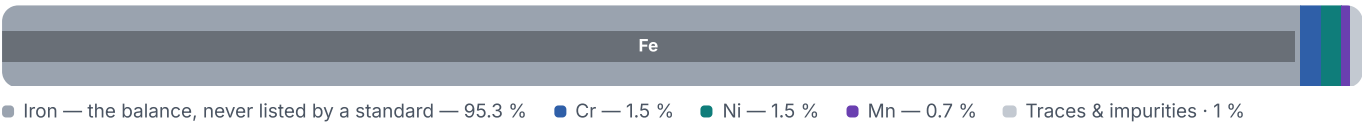
Chemical composition, mechanical and physical property values, and 84 standard designations from 24 regions.

DENSITY 7.73 g/cm³	OTHER DESIGNATIONS 84 in 24 regions	PROPERTY VALUES 16 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

computed from composition · °C

PREDICTED AE3 760 °C	PREDICTED AE1 736 °C	PREDICTED ACM 606 °C	PREDICTED BS 491 °C
--------------------------------	--------------------------------	--------------------------------	-------------------------------

Mechanical properties

12 values across 4 conditions

QUENCHED AND TEMPERED · ROUND PRODUCTS					A % · Lo = 5,65 √So
≤ 16					9
16 – 40					10
40 – 100					11
100 – 160					12
160 – 250					13
SOFT ANNEALED					HB
Soft annealed					248–255
QUENCHING AND DRAWING	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 25	1080	930	12	50	780
CONDITION · DIMENSION					HB
38KH2N2MA (38X2H2MA) (annealing) , GOST 4543-71					269

Physical properties

8 values

CONDITION · DIMENSION	E GPa	ALPHA 10 ^{^-6} /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	213	–	38	–	322
100	206	11.9	37	490	398
200	194	12.5	35	502	482
300	180	13.1	35	523	592
400	174	13.3	33	532	740
500	164	13.8	32	565	910
600	157	14.1	30	590	1090
700	141	14.6	28	615	1300
800	129	11.8	28	670	–
PROPERTY	VALUE		UNIT		
Density	7.73		g/cm ³		
Transformation point Ac1	753		°C		
Transformation point Ac3	790		°C		

PROPERTY	VALUE	UNIT
Transformation point Ar3	490	°C
Transformation point Ar1	370	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	is not used.	
Flake sensitivity	predisposed	
Temper brittleness	not predisposed	

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—

Designations across standards

84 designations · 4 documented as identical

Russia / CIS	14	United States	10	
30KHNML	gost	F1270 This grade's own name	uns	
30XHMЛ	gost	G43400	uns	
34ChN1M	gost	4330	aisi-sae	
34XH1M	gost	4337	aisi-sae	
36KH2N2MFA	gost	4340	aisi-sae	
36KH2N2MFA	gost	G43376	aisi-sae	
36X2H2MΦA	gost	G43400	aisi-sae	
36XH1MΦA	gost	G43499	aisi-sae	
38Ch2N2MA	gost	J23015	aisi-sae	
38KH2N2MA	gost	A829	astm	
38KH2N2MA	gost	United States / Aerospace	5	
38X2H2MA	gost			
38XHMA	gost		6359	ams
40KHN2MA	gost		6409	ams
			6414	ams
		6415	ams	
		6454	ams	
		China	5	
		34Cr2Ni2Mo	gb	
		34CrNi3Mo	gb	
		34CrNiMo	gb	
		40CrNiMoA	gb	
		ZG34CrNiMo	gb	

Italy	5	Japan	3
34CrNiMo6	uni	SNCM431	jis
35CrNiMo6	uni	SNCM439	jis
35NiCrMo6	uni	SNCM447	jis
35NiCrMo6KB	uni		
KB	uni	Hungary	3
Romania	5	34CrNiMo6	msz
34MoCrNi15	stas	Ao30CrNiMo6-6	msz
34MoCrNi15q	stas	NCMo 5	msz
34MoCrNi16	stas	Sweden	2
34MoCrNi16q	stas	2541	ss
T30MoCrNi14	stas	SIS 14 2541 This grade's own name	ss
Europe	4	Poland	2
1.6582	din-en	34HNM	pn
34CrNiMo6 This grade's own name	din-en	34HNMA	pn
G34CrNiMo6 This grade's own name	din-en	Bulgaria	2
GS-34CrNiMo6V	din-en	30ChNML	bds
United Kingdom	4	34CrNiMo6	bds
34CrNiMo6	bs	International	1
816M40	bs	36CrNiMo6	iso
817M40	bs	Slovakia	1
EN 24	bs	16 343	stn
France	4	Serbia	1
34CrNiMo6	afnor	Č.5431	srps
34CrNiMo8	afnor	Croatia	1
35CND6	afnor	Č.5431	hrn
35NCD6	afnor	Australia / New Zealand	1
Spain	4	4340	as-nzs
34CrNiMo6	une	Austria	1
40NiCrMo7	une	BOHLERV155	onorm
F.1272	une	Belgium	1
F.1272-40NiCrMo7	une	35CrNiMo6	nbn
Czechia	4	South Korea	1
16 444	csn	SNCM447	ks
16342	csn		
16343	csn		
16440	csn		

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 2541

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.

1.6582

ISSUED

Sep 8, 2026