

MATERIAL NUMBER 1.7034 · CLASS 1.7

1.7034

Chemical composition, mechanical and physical property values, and 104 standard designations from 23 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 104 in 23 regions	PROPERTY VALUES 14 on file
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Chemical composition

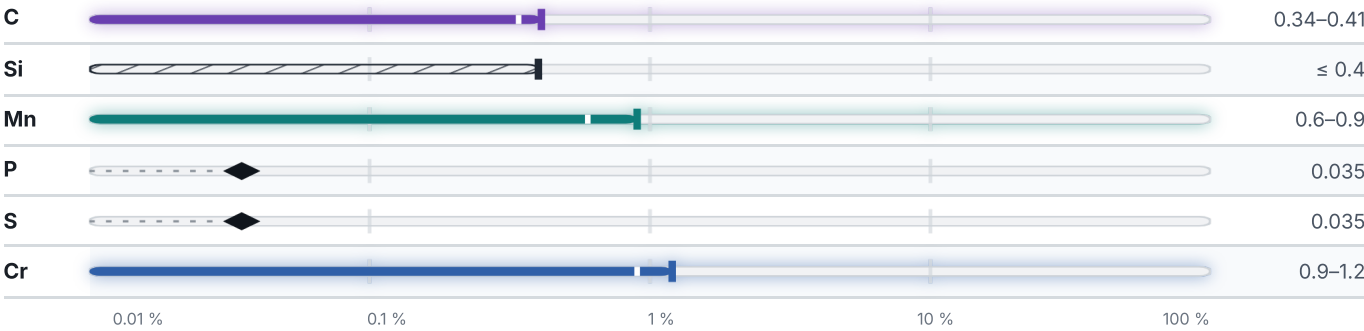
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.4 % ● Cr — 1.1 % ● Mn — 0.8 % ● Si — 0.4 % ● Traces & impurities · 0.4 %

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: Ni, Mo.

Mechanical properties

18 values across 5 conditions

CONDITION · DIMENSION	RM N/mm²	A5 %	HB
Pipe, GOST 8731-87	657	9	–
Pipe cooling strain, GOST 8733-74	618	14	–

CONDITION · DIMENSION		RM N/mm ²	A5 %	HB	
(annealing) , GOST 4543-71		—	—	217	
Pipe GOST 8731-87		—	—	269	
Pipe GOST 8733-74		—	—	217	
Bar GOST 10702-78		—	—	179	
QUENCHED AND TEMPERED · ROUND PRODUCTS				A % · Lo = 5,65 √So	
≤ 16				11	
16 – 40				13	
40 – 100				14	
TREATED TO IMPROVE SHEARABILITY				HB	
Treated to improve shearability				255	
SOFT ANNEALED				HB	
Soft annealed				235	
QUENCHING 860°C, OIL, DRAWING 500°C, WATER	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Ø 25	980	785	10	45	590

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.82	214	–	–	–	210
100	7.8	211	11.9	46	466	285
200	7.77	206	12.5	42.7	508	346
300	7.74	203	13.2	42.3	529	425
400	7.7	185	13.8	38.5	563	528
500	7.67	176	14.1	35.6	592	642
600	7.63	164	14.4	31.9	622	780
700	7.59	143	14.6	28.8	634	936
800	7.61	132	–	26	664	1100
900	7.56	–	–	26.7	–	1140
1000	7.51	–	–	28	–	1170

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
1100	7.47	–	–	28.8	–	120
1200	7.43	–	–	–	–	1230

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³
Transformation point Ac1	743	°C
Transformation point Ac3	782	°C
Transformation point Ar3	730	°C
Transformation point Ar1	693	°C

Technological properties

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

Heat treatment

6 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with (or)		
Annealing	Temperature not stated	—
Tempering	Temperature not stated	—
Annealing	Temperature not stated	—
source joins the operations with + / procedural order		
Quenching	820–860 °C	—
Tempering	540–680 °C	—
Annealing	Temperature not stated	—
source joins the operations with + / procedural order		
Quenching	820–860 °C	—
Tempering	540–680 °C	—
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—

Designations across standards

104 designations · 5 documented as identical

United States		12	Japan		8
G51350	This grade's own name	uns	SCr 3 H		jis
H51350	This grade's own name	uns	SCr3		jis
5135	This grade's own name	aisi-sae	SCr35H		jis
5135H	This grade's own name	aisi-sae	SCr4		jis
5140		aisi-sae	SCr435		jis
5140H		aisi-sae	SCr435H		jis
5140RH		aisi-sae	SCr440		jis
G51350		aisi-sae	SCr440H		jis
G51400		aisi-sae			
Gr.5135		aisi-sae	Italy		8
H51350		aisi-sae	36CrMn4		uni
H51400		aisi-sae	36CrMn5		uni
			37Cr4		uni
Spain		11	38Cr4		uni
37Cr4		une	38Cr4KB		uni
38Cr4		une	38CrMn4KB		uni
38Cr4DF		une	41Cr4		uni
41Cr4		une	41Cr4KB		uni
41Cr4DF		une			
42Cr4		une	France		6
F.1201 -38 Cr 4		une	37Cr4		afnor
F.1202		une	38C4		afnor
F.1210		une	38C4FF		afnor
F.1211		une	41Cr4		afnor
F1201		une	42C4		afnor
			42C4TS		afnor
China		9	Russia / CIS		6
35Cr		gb	38ChA		gost
38CrA		gb	38KHA		gost
40Cr		gb	38KHA		gost
40CrA		gb	38XA		gost
40CrH		gb	40KH		gost
45Cr		gb	40X		gost
45CrH		gb			
ML38CrA		gb	International		5
ML40Cr		gb	34Cr4		iso
			34CrS4		iso
United Kingdom		8	37Cr4		iso
37Cr4		bs	37CrS4		iso
41Cr4		bs	46Cr2		iso
530A36		bs			
530A40		bs	Hungary		4
530H36		bs	37Cr4		msz
530H40		bs	41Cr4		msz
530M36		bs	Cr2Z		msz
530M40		bs	Cr3Z		msz

Bulgaria	4	Europe	2
37Cr4	bds	37Cr4	This grade's own name din-en
38ChA	bds	46Cr2	din-en
40Ch	bds		
41Cr4	bds	Australia / New Zealand	2
South Korea	4	5132H	as-nzs
SCr435	ks	5140	as-nzs
SCr435H	ks	Sweden	1
SCr440	ks	2245	ss
SCr440H	ks	Czechia	1
Poland	3	14140	csn
38HA	pn	Slovakia	1
40H	pn	14 140	stn
40HA	pn	Latin America	1
Romania	3	5135	copant
40Cr10	stas	Serbia	1
40Cr10q	stas	Č.4134	srps
40Cr10X	stas	Austria	1
Belgium	3	41Cr4SP	onorm
37Cr4	nbn		
41Cr4	nbn		
45C4	nbn		

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 1.7034
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	1.7034	Aug 20, 2026