SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.0334 · CLASS 1.0

1.0334

Chemical composition, mechanical and physical property values, and 29 standard designations from 11 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm³	29 in 11 regions	14 on file

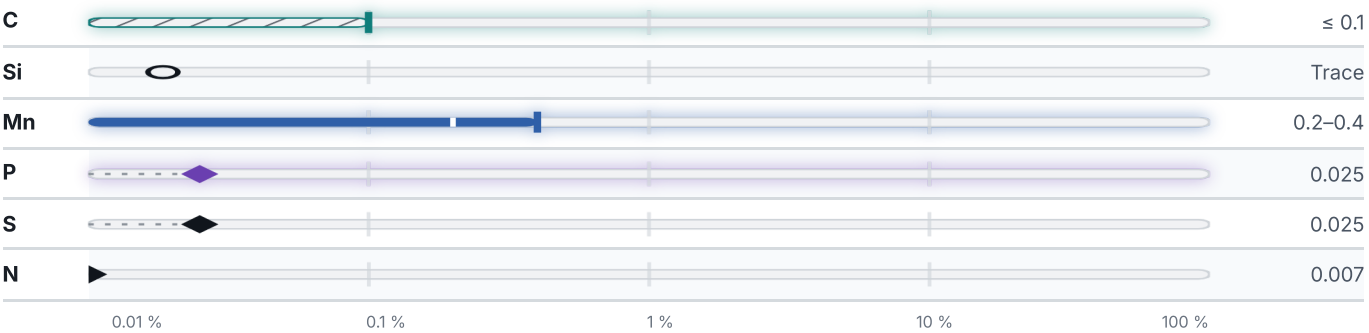
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 99.5 % · Mn — 0.3 % · C — 0.1 % · P — 0 % · Traces & impurities · 0 %

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: Si, Ni, Cr, Mo.

Mechanical properties

15 values across 3 conditions

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %	Z %	HB
Pipe, GOST 10705-80	314	196	25	–	–
Steel cold-drawn , GOST 10702-78	372	–	8	55	–

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %	Z %	HB
(cold-drawn, cold-worked) , GOST 10702-78	–	–	–	–	179
Sheet GOST 4041-71	–	–	–	–	114
(annealing) , Sheet trick GOST 1577-93	–	–	–	–	137

CONDITION · DIMENSION	RM N/mm²	A5 %
4 - 14	270–410	32

NORMALIZING	RM N/mm²	RE N/mm²	A5 %	Z %
6 - 60	310	185	33	55

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	7.856	186	–	–	–	–
100	7.832	–	12.4	58	466	190
200	7.8	–	13.2	54	479	263
300	7.765	–	13.9	49	–	352
400	7.73	–	14.5	45	512	458
500	7.692	–	14.9	40	–	584
600	7.653	–	15.1	36	567	734
700	7.613	–	15.3	32	–	905
800	7.582	–	12.1	29	–	1081
900	7.594	–	14.8	27	–	1130
1000	–	–	12.6	–	–	–

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³
Transformation point Ac1	732	°C
Transformation point Ac3	870	°C
Transformation point Ar3	854	°C
Transformation point Ar1	680	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	
Flake sensitivity	not predisposed	
Temper brittleness	not predisposed	

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
Normalizing	Temperature not stated	—

Designations across standards

29 designations · 2 documented as identical

Japan 6

SPH2A	jis
SPHD	jis
SPHE	jis
SWRCH10K	jis
SWRCH10R	jis
SWRCH12R	jis

United States 5

1008	aisi-sae
1010	aisi-sae
1012	aisi-sae
A621	aisi-sae
1010	astm

France 5

1C	afnor
2C	afnor
FB10	afnor
FR10	afnor
XC10	afnor

United Kingdom 3

040A10	bs
14HR	bs
3HR	bs

Europe 2

DD 12 G 1 This grade's own name	din-en
UStW 23 This grade's own name	din-en

China 2

10F	gb
ML10	gb

Russia / CIS 2

10kp	gost
10кп	gost

Spain 1

AP12	une

International 1

C10GC	iso

Italy 1

FeP12	uni

Czechia 1

12010	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 1.0334

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	1.0334	Aug 20, 2026