

MATERIAL NUMBER 1.0551 · CLASS 1.0

1.0551

Chemical composition, mechanical and physical property values, and 17 standard designations from 11 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 17 in 11 regions	PROPERTY VALUES 14 on file
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Chemical composition

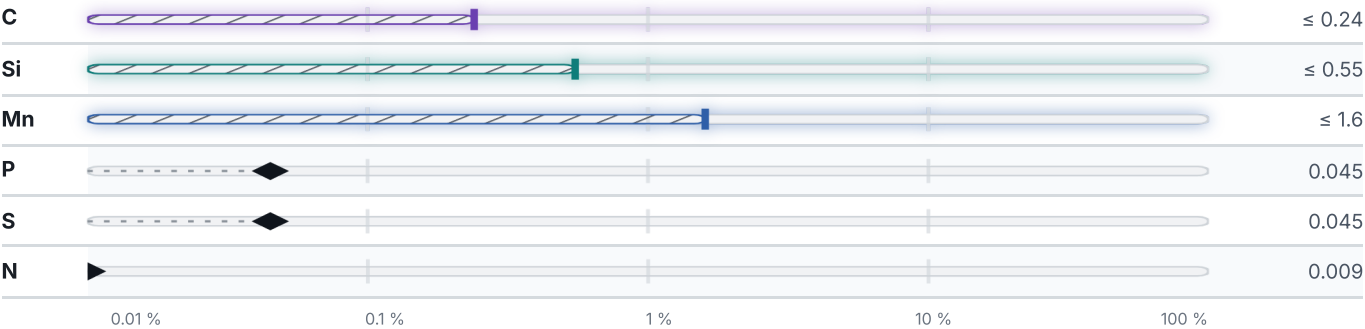
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.5 % ● Mn — 1.6 % ● Si — 0.6 % ● C — 0.2 % ● Traces & impurities · 0.1 %

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, Cr, Mo.

Mechanical properties

10 values across 2 conditions

NORMALIZING 880 - 900°C, DRAWING 610 - 630°C	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
to 100	471	255	17	30	343

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %	Z %	KCU kJ/m²
Casting, GOST 977-88	491	294	17	30	343

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm³	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)
20	7.81	–	–	–
100	–	12.6	76	470
200	–	13.9	65	483
400	–	15	44	525
500	–	15.6	38	–
600	–	–	–	571

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³
Transformation point Ac1	735	°C
Transformation point Ac3	813	°C
Transformation point Ar3	796	°C
Transformation point Ar1	677	°C

Technological properties

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

Designations across standards

17 designations · 1 documented as identical

United States		5	Russia / CIS		2
Gr.N2	aisi-sae		30L		gost
GrLCB	aisi-sae		30Л		gost
GrWCB	aisi-sae		Europe		
J03002	aisi-sae		1		
J03003	aisi-sae		S355JRC	This grade's own name	din-en
Japan		2	United Kingdom		1
SC450	jis		161Gr400A		bs
SC480	jis				

France	1	Czechia	1
E26-52-M	afnor	422 650	csn
Italy	1	Poland	1
FeG49-1	uni	LII500	pn
Sweden	1	Austria	1
1505	ss	GS52	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.

Enquiry about 1.0551

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	1.0551	Aug 20, 2026