

MATERIAL NUMBER 1.0552 · CLASS 1.0

Ao500

Material no. 1.0552

also listed as GE 260

Chemical composition, mechanical and physical property values, and 26 standard designations from 13 regions.

DENSITY**7.85** g/cm³**OTHER DESIGNATIONS****26** in 13 regions**PROPERTY VALUES****17** on file

Chemical composition

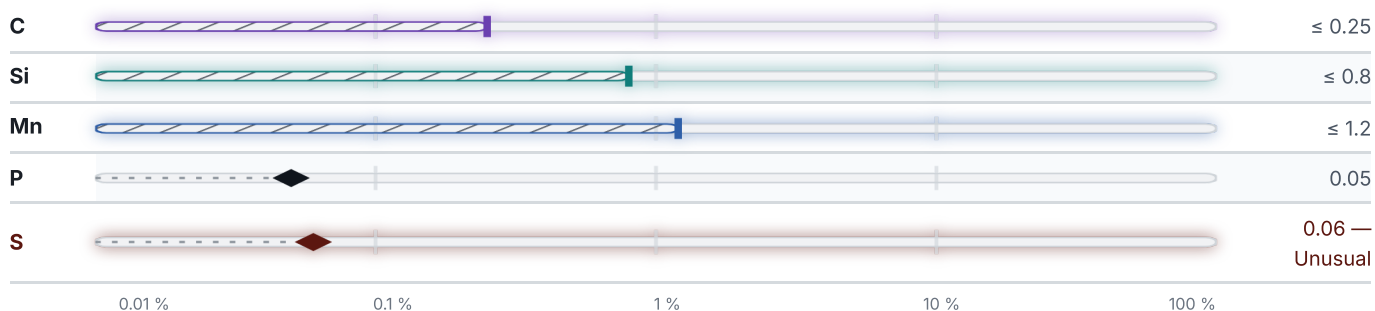
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.6 % ● Mn — 1.2 % ● Si — 0.8 % ● C — 0.3 % ● 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 860 - 880°C, DRAWING 600 - 630°C	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
to 100	491	275	15	25	343
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Casting, GOST 977-88	540	343	16	20	294

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	7.83	212	–	53	–	172
100	–	206	11.1	51	470	223
200	–	201	12	49	491	301
300	–	192	12.9	45	512	394
400	–	176	13.5	42	533	497
500	–	163	13.9	39	554	623
600	–	151	14.5	35	580	771
700	–	131	14.8	31	613	935
800	–	118	11.9	27	710	1115
900	–	–	12.5	27	701	1154
PROPERTY	VALUE		UNIT			
Density	7.85		g/cm ³			
Transformation point Ac1	730		°C			
Transformation point Ac3	802		°C			
Transformation point Ar3	795		°C			
Transformation point Ar1	691		°C			

Technological properties

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

Designations across standards

26 designations · 4 documented as identical

United States	4	Poland	2
J02501 This grade's own name	uns	L500	pn
J03501 This grade's own name	uns	LII500	pn
Gr1	aisi-sae	Hungary	2
J03502	aisi-sae	Ao500	msz
Europe	2	Ao500FK	msz
GE 260 This grade's own name	din-en	Romania	2
GS-52 This grade's own name	din-en	OT500-1	stas
United Kingdom	2	OT500-3	stas
161-480	bs	Bulgaria	2
A2	bs	35LI	bds
Japan	2	35LII	bds
SC480	jis	Finland	2
SCC	jis	G-26-52	sfs
China	2	G-30-57	sfs
ZG270-500	gb	France	1
ZGD290-510	gb	280-480M	afnor
Russia / CIS	2	Czechia	1
35L	gost	422650	csn
35Л	gost		

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 Ao500

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

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ISSUED

Aug 20, 2026