

MATERIAL NUMBER 1.8963 · CLASS 1.8

WSt52.3

Material no. 1.8963

also listed as S355J2G1W

Chemical composition, mechanical and physical property values, and 29 standard designations from 9 regions.

DENSITY

7.85 g/cm³

OTHER DESIGNATIONS

29 in 9 regions

PROPERTY VALUES

15 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 814 °C	PREDICTED AE1 722 °C	PREDICTED ACM 423 °C	PREDICTED BS 526 °C
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Mechanical properties

16 values across 1 conditions

CONDITION · DIMENSION	REH N/mm²	RM N/mm²	A80 %	A %
1.5 – 2	–	–	16	–
2 – 2.5	–	–	17	–
2.5 – 3	–	–	18	–
≤ 3	–	510–680	–	–
3 – 100	–	470–630	–	–
3 – 40	–	–	–	22
≤ 16	355	–	–	–
16 – 40	345	–	–	–
40 – 63	335	–	–	21
63 – 80	325	–	–	–
63 – 100	–	–	–	20
80 – 100	315	–	–	–
100 – 150	295	450–600	–	18

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

29 designations · 12 documented as identical

United States		15	United Kingdom		1
K11430	This grade's own name	uns	WR50C		bs
K11538	This grade's own name	uns			
K11541	This grade's own name	uns	France		1
K11552	This grade's own name	uns	E36WB4		afnor
K11567	This grade's own name	uns			
K12010	This grade's own name	uns	Japan		1
K12032	This grade's own name	uns	SMA570W		jis
K12043	This grade's own name	uns			
K12044	This grade's own name	uns	Italy		1
K12211		uns	Fe510D2K1		uni
K12609		uns			
A588Gr.A		aisi-sae	Czechia		1
A600A		aisi-sae	15127		csn
A600B		aisi-sae			
A600C		aisi-sae	Slovakia		1
Europe		7	15 127		stn
A600C		din-en	Canada		1
Fe510D2KI		din-en	400AAT		csa
S355J2G1W	This grade's own name	din-en			
S355J2W	This grade's own name	din-en			
S355J2W(+N)		din-en			
WSt52.3		din-en			
WTSt 52-3	This grade's own name	din-en			

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 WSt52.3

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	1.8963	Aug 20, 2026