

MATERIAL NUMBER 1.8905 · CLASS 1.8

A 860 Grade WPHY70

Material no. 1.8905

also listed as P460N

Chemical composition, mechanical and physical property values, and 37 standard designations from 13 regions.

DENSITY

7.85 g/cm³

OTHER DESIGNATIONS

37 in 13 regions

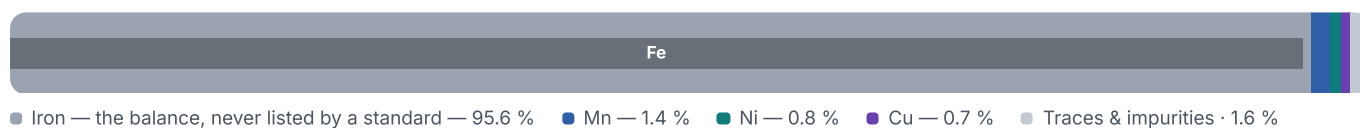
PROPERTY VALUES

20 on file

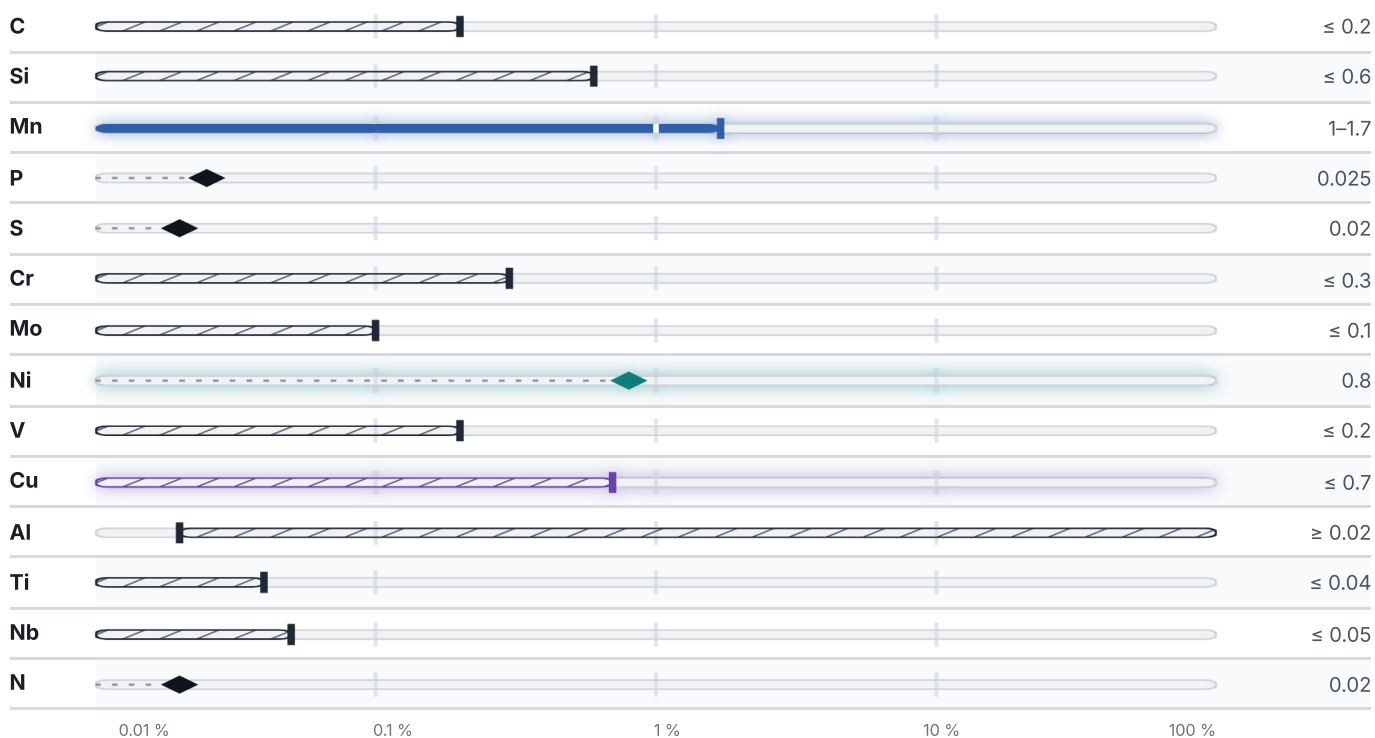
Chemical composition

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 807 °C	PREDICTED AE1 708 °C	PREDICTED ACM 438 °C	PREDICTED BS 540 °C
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Mechanical properties

3 values across 1 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %
Sheet, GOST 19282-73	590	440	19

Physical properties

6 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³
Transformation point Ac1	720	°C
Transformation point Ac3	880	°C
Transformation point Ar3	780	°C
Transformation point Ar1	620	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	

Designations across standards

37 designations · 3 documented as identical

United States9		United Kingdom4	
K02900	uns	4360-55F	bs
K12004	This grade's own nameuns	55C	bs
K12202	uns	55F	bs
K12524	uns	P460N	bs
A633Gr.E	aisi-sae	Europe3	
K02900	aisi-sae	1.8905din-en	
K12202	aisi-sae	P460NThis grade's own namedin-en	
A 694 Grade F70	astm	StE 460This grade's own namedin-en	
A 860 Grade WPHY70	astm		
France5		China3	
E460R	afnor	15MnVNR	gb
E460RIFP	afnor	18MnMoNbR	gb
FeE460KGN	afnor	Q460C	gb
P460N	afnor		
S460N	afnor		

Russia / CIS	3	Italy	2
18G2AF	gost	FeE460KG	uni
18G2AFps	gost	P460N	uni
18Г2АФпс	gost		
Spain	2	Sweden	1
AE460KG	une	2143	ss
P460N	une	Poland	1
Japan	2	18G2AV	pn
SM520B	jis	Hungary	1
SM520C	jis	E460D	msz
		Switzerland	1
		StE47	snv

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 A 860 Grade WPHY70

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

[Start an enquiry](#)

DATASHEET ONLINE

View the material page

GRADE SEARCH

Search all grades

MATERIAL NO.

1.8905

ISSUED

Aug 20, 2026