

MATERIAL NUMBER 1.0486 · CLASS 1.0

A 694 Grade F42

Material no. 1.0486

also listed as P275N

Chemical composition, mechanical and physical property values, and 18 standard designations from 5 regions.

DENSITY

7.85 g/cm³

OTHER DESIGNATIONS

18 in 5 regions

PROPERTY VALUES

18 on file

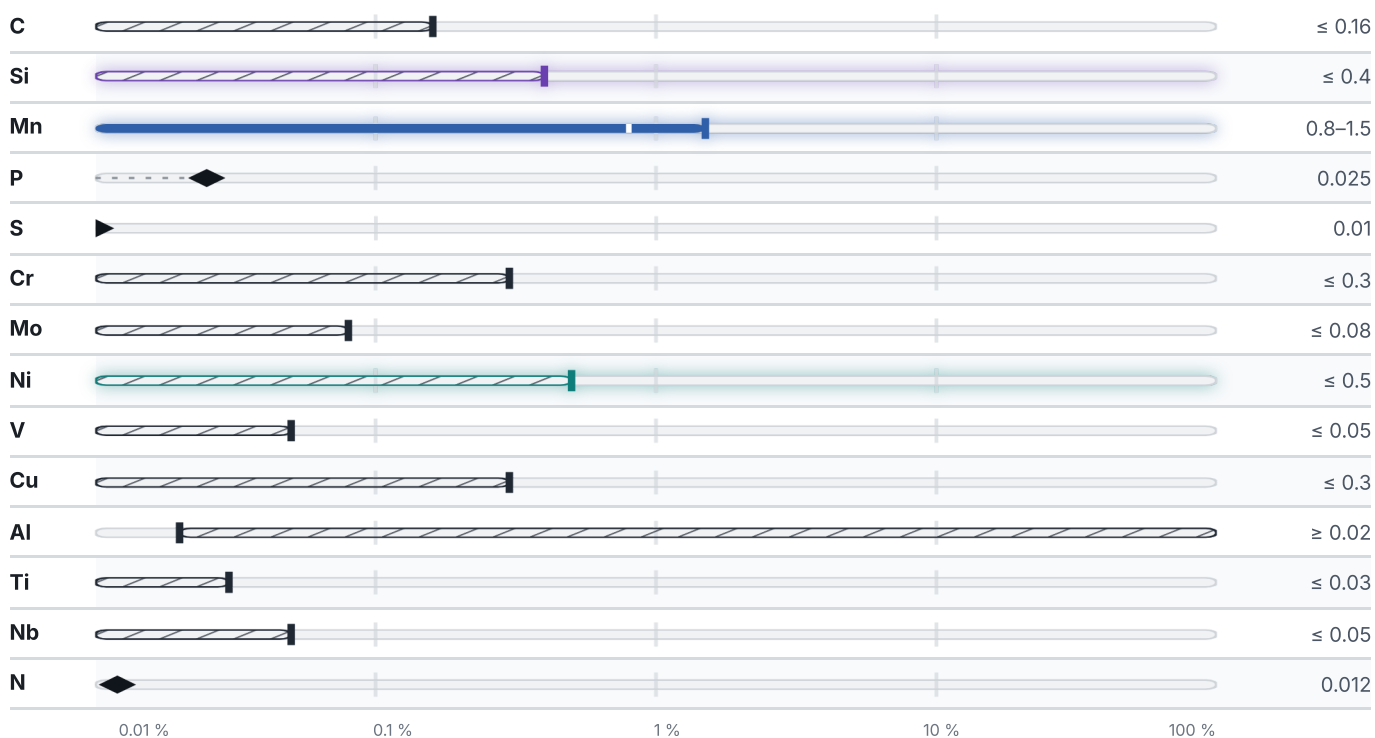
Chemical composition

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 813 °C	PREDICTED AE1 711 °C	PREDICTED ACM 401 °C	PREDICTED BS 554 °C
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Mechanical properties

6 values across 1 conditions

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A5 %
Rolled stock, GOST 535-2005	370–490	205–245	23–26
Sheet trick, GOST 14637-89	370–490	205–245	23–26

Physical properties

4 values

CONDITION · DIMENSION	RHO g/cm³	
20	7.85	

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Technological properties

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

Designations across standards

18 designations · 7 documented as identical

United States		9	Europe		3
K01701	This grade's own name	uns	1.0486		din-en
K01802	This grade's own name	uns	P275N	This grade's own name	din-en
K02100	This grade's own name	uns	StE 285	This grade's own name	din-en
K02203	This grade's own name	uns	International		
K02402	This grade's own name	uns	2		
K03006		uns	E235-B		iso
Grade42		aisi-sae	Fe360-B		iso
A 694 Grade F42		astm	Japan		
A 860 Grade WPHY42		astm	2		
			SM400B		jis
			SM41B		jis

Russia / CIS	2
St3Gps	gost
Ст3Гпс	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 A 694 Grade F42

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

DATASHEET ONLINE

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ISSUED

Aug 20, 2026