

MATERIAL NUMBER 1.0721 · CLASS 1.0

Y12

Material no. 1.0721

also listed as 10 S20

Chemical composition, mechanical and physical property values, and 35 standard designations from 15 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 35 in 15 regions	PROPERTY VALUES 6 on file
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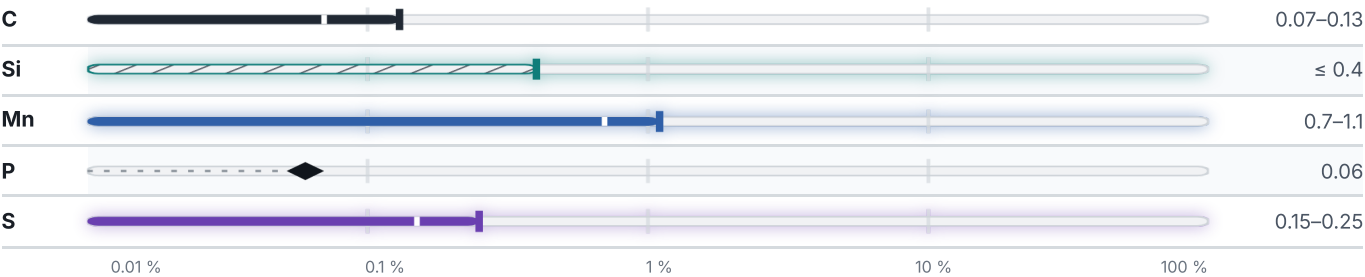
Chemical composition

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

Not enough recorded composition to predict a transformation temperature for this grade — missing: Ni, Cr, Mo.

Mechanical properties

11 values across 2 conditions

COLD DRAWN / HARD	RM N/mm ²	A %
5 – 10	520–780	7

COLD DRAWN / HARD	RM N/mm ²	A %
10 – 16	490–740	8
16 – 40	460–720	9
40 – 63	410–660	10
63 – 100	380–630	11
AS ROLLED AND TURNED		HB
As rolled and turned		105–156

Physical properties

1 values

CONDITION · DIMENSION	RHO g/cm ³	RHO_EL nΩ·m
20	7.8	250
PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Designations across standards

35 designations · 8 documented as identical

United States15		France2	
G11080	This grade's own nameuns	10F1	afnor
G11090	This grade's own nameuns	10PbF2	afnor
1108	This grade's own nameaisi-sae	Japan2	
1109	This grade's own nameaisi-sae	10S20	This grade's own namejis
1111	This grade's own nameaisi-sae	SUM21	jis
1113	aisi-sae	Bulgaria2	
1211	aisi-sae	A10	bds
1212	aisi-sae	A12	bds
1214	aisi-sae	United Kingdom1	
B1111	This grade's own nameaisi-sae	210M15	bs
B1112	aisi-sae	China1	
B1113	aisi-sae	Y12	gb
B1114	aisi-sae	Russia / CIS1	
G11080	aisi-sae	A12	gost
Gr.1108	aisi-sae	Italy1	
Spain3		CF10S20	uni
-10S20	une		
10SPb20	une		
F.2121	une		
Europe2			
1.0721	din-en		
10 S20	This grade's own namedin-en		

Sweden	1	Poland	1
1912	ss	A11	pn
Czechia	1	Romania	1
11110	csn	AUT12	stas
Slovakia	1		
11 110	stn		

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 Y12

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	1.0721	Aug 20, 2026