

MATERIAL NUMBER 1.0622 · CLASS 1.0

80S

Material no. 1.0622

also listed as C80D

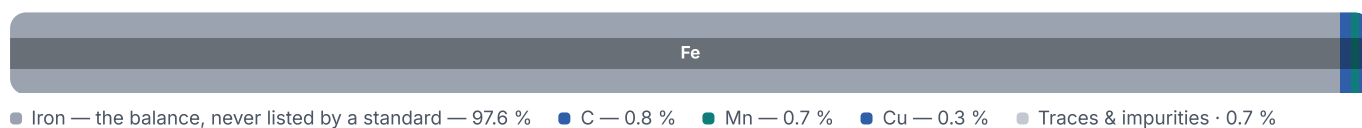
Chemical composition, mechanical and physical property values, and 16 standard designations from 6 regions.

DENSITY**7.85** g/cm³**OTHER DESIGNATIONS****16** in 6 regions**PROPERTY VALUES****14** on file

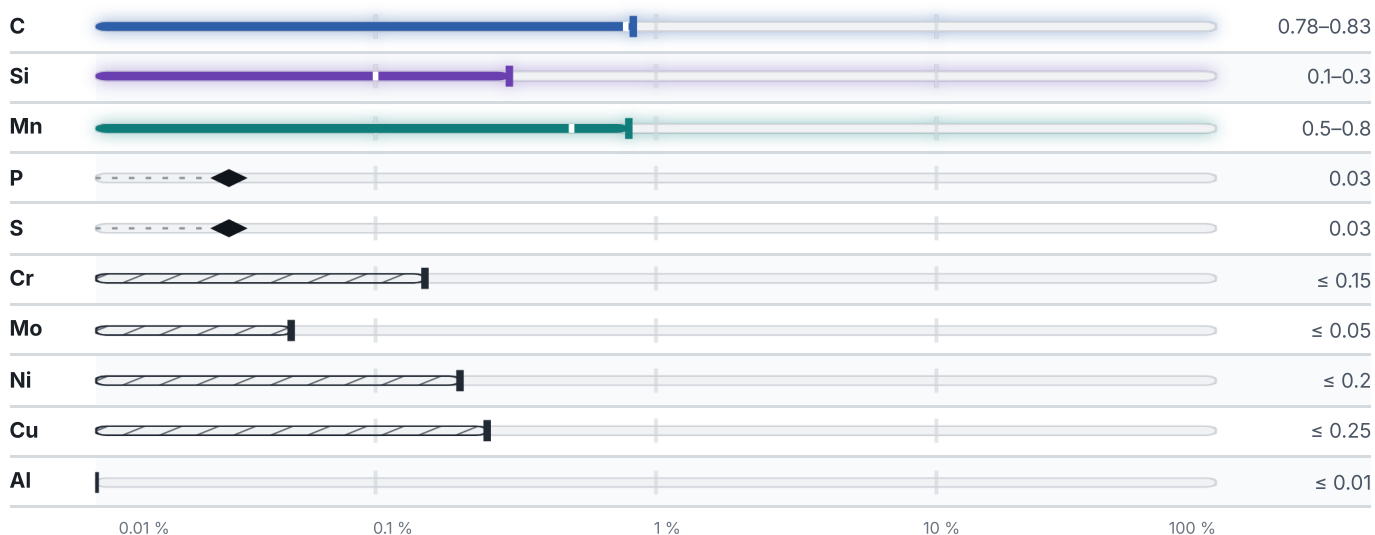
Chemical composition

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

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no

transformation temperature is predicted here.

Physical properties 4 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	is not used.	
Flake sensitivity	not predisposed	
Temper brittleness	not predisposed	

Heat treatment 2 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—

Designations across standards 16 designations · 3 documented as identical

Russia / CIS		6	Poland		2
05KH12N6D2MFSGT	gost		D80		pn
05X12H6Д2МФСТ	gost		D80A		pn
80	gost		Europe		
80GSL	gost		1		
80S	gost		C80D	This grade's own name	din-en
ДІ80	gost		Japan		
United States		5	1		
G10780	This grade's own name	uns	SUP3		jis
1078	This grade's own name	aisi-sae	Bulgaria		
1080	aisi-sae		1		
G10780	aisi-sae		80		bds
G10800	aisi-sae				

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 80S

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

[Start an enquiry](#)

DATASHEET ONLINE
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GRADE SEARCH
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ISSUED
Aug 20, 2026