

MATERIAL NUMBER 1.7729 · CLASS 1.7

681-820

Material no. 1.7729

also listed as 20CrMoVTiB4-10

Chemical composition, mechanical and physical property values, and 6 standard designations from 4 regions.

DENSITY

7.85 g/cm³

OTHER DESIGNATIONS

6 in 4 regions

PROPERTY VALUES

16 on file

Chemical composition

Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 95.5 % ● Cr — 1.1 % ● Mn — 1 % ● V — 0.7 % ● Traces & impurities · 1.8 %

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 815 °C	PREDICTED AE1 746 °C	PREDICTED ACM 493 °C	PREDICTED BS 509 °C
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Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.85	g/cm³

Designations across standards

6 designations · 1 documented as identical

Russia / CIS	3	United Kingdom	1
20Ch1M1F1TR	gost	681-820	bs
20Kh1M1F1TR	gost		
EP182	gost	Poland	1
		20HMFTB	pn
Europe	1		
20CrMoVTiB4-10	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 681-820

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	1.7729	Aug 20, 2026