

MATERIAL NUMBER 1.1152 · CLASS 1.1

20ps

Material no. 1.1152

also listed as C20E2C

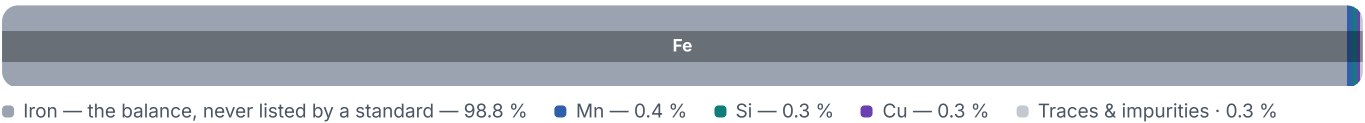
Chemical composition, mechanical and physical property values, and 41 standard designations from 4 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 41 in 4 regions	PROPERTY VALUES 11 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

9 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Normalizing 1100°C, Drawing 650°C, 6h	1076	958	13.3	46.6	150
CONDITION · DIMENSION	RM N/mm ²	A5 %	Z %	KCU kJ/m ²	
Bar	900	15	55	400	

Physical properties

5 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	LAMBDA W/(m·K)
20	7.9	217	–
100	–	211	41
200	–	205	46.1
300	–	196	48.2
400	–	188	50.2
500	–	180	52.8
600	–	167	54.4
700	–	152	56.1
PROPERTY	VALUE	UNIT	
Density	7.85	g/cm ³	
Transformation point Ac1	810	°C	
Transformation point Ac3	950	°C	
Transformation point Ar3	800	°C	
Transformation point Ar1	690	°C	

Designations across standards

41 designations · 4 documented as identical

Russia / CIS		35	Europe		3	
20		gost	20kp		din-en	
20-PV		gost	C20E2C	This grade's own name	din-en	
20A		gost	Cq 22	This grade's own name	din-en	
20DKHL		gost	United States			2
20F		gost	G10230	This grade's own name	uns	
20FA		gost	1023	This grade's own name	aisi-sae	
20FL		gost	Japan			1
20FTL		gost	S22C		jis	
20FYu		gost				
20GNMFL		gost				
20GNMYuL		gost				
20GS		gost				
20KHF		gost				
20KhFA		gost				
20KHGNR		gost				
20KHGNTR		gost				
20KHGR		gost				
20KHGSFL		gost				
20KHGSNDML		gost				
20KHGSA		gost				
20KhMFBR		gost				
20KHML		gost				
20KHN		gost				
20KHNR		gost				
20kp		gost				
20ps		gost				
20YuA		gost				
20YuCh		gost				
20YuChA		gost				
PA-ZhKh20KB		gost				
SHKH20SG		gost				
Sv-20GSTYuA		gost				
AS20KHGNM		gost				
ATS20KHGNM		gost				
X20K5		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 20ps

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	1.1152	Aug 20, 2026