

MATERIAL NUMBER 1.0330 · CLASS 1.0

F12

Material no. 1.0330

also listed as DC 01

Chemical composition, mechanical and physical property values, and 42 standard designations from 16 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 42 in 16 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

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

Mechanical properties

20 values across 6 conditions

CONDITION · DIMENSION	RM N/mm ²	A5 %	Z %	HB
Rolled stock, GOST 10702-78	370	8	55	—

CONDITION · DIMENSION	RM N/mm ²	A5 %	Z %	HB
(hot-rolled) , GOST 1050-88	–	–	–	131
(cold-drawn, cold-worked) , GOST 1050-88	–	–	–	179
Sheet GOST 4041-71	–	–	–	109
Rolled stock GOST 1050-88	–	–	–	131
SOFT ANNEALED				HV
Soft annealed				105
CONDITION · DIMENSION	RM N/mm ²		A5 %	
4 - 8	270–410			32
CONDITION · DIMENSION	RM N/mm ²		Z %	
Bar cold-drawn , GOST 10702-78	310–410			55
NORMALIZING	RM N/mm ²	RE N/mm ²	A5 %	Z %
to 80	320	196	33	60
NORMALIZING	RM N/mm ²	RE N/mm ²	A5 %	Z %
6 - 60	320	196	33	60

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.871	203	–	–	–	–
100	7.846	207	12.5	60	482	178
200	7.814	182	13.4	56	498	252
300	7.781	153	14	51	514	341
400	7.745	141	14.5	47	533	448
500	7.708	–	14.9	41	555	575
600	7.668	–	15.1	37	584	725
700	7.628	–	15.3	34	626	898
800	7.598	–	14.7	30	695	1073
900	7.602	–	12.7	27	703	1124

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
1000	–	–	13.8	–	695	–
PROPERTY				VALUE	UNIT	
Density				7.85	g/cm³	
Transformation point Ac1				735	°C	
Transformation point Ac3				874	°C	
Transformation point Ar3				854	°C	
Transformation point Ar1				680	°C	

Technological properties

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

Designations across standards

42 designations · 6 documented as identical

United States		10	Czechia		4
G10080	This grade's own name	uns	11300		csn
1008	This grade's own name	aisi-sae	11304		csn
1012		aisi-sae	11321		csn
A620		aisi-sae	11331		csn
A622		aisi-sae			
G10080		aisi-sae	United Kingdom		
SAE1008		aisi-sae	1449-2		bs
SAE1010		aisi-sae	CR4		bs
A366		astm	FeP01		bs
A619		astm			
Europe		5	China		3
DC 01	This grade's own name	din-en	08		gb
FeP01		din-en	08F		gb
SAE1010		din-en	DC01	This grade's own name	gb
St 12	This grade's own name	din-en	International		
St 2	This grade's own name	din-en	Cr01		iso
France		4	CR22		iso
3C		afnor	Japan		
C		afnor	SPCC		jis
F12		afnor	SPHE		jis
FeP01		afnor			

Russia / CIS	2	Poland	1
08kp	gost	08Y	pn
08ps	gost		
Spain	1	Slovakia	1
AP00	une	11 321	stn
Italy	1	Bulgaria	1
FeP01	uni	08ps	bds
Sweden	1	Austria	1
1142	ss	St02F	onorm

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 F12

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	1.0330	Aug 20, 2026