

Database of Steel and Alloy (Marochnik)

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Characteristics for grade D20 (Д20).

Grade :	D20 (Д20)
Classification :	Aluminium wrought alloys
Equivalent grades:	Is absent

Chemical composition in % for grade D20 (Д20)

Fe	Si	Mn	Ti	Al	Cu	Zr	Mg	Zn	Impurity
max 0.3	max 0.3	0.4 - 0.8	0.1 - 0.2	90.95 - 93.5	6 - 7	max 0.2	max 0.05	max 0.1	other, each 0.05; all 0.1

Comment: **Al** is a basis; the percentage of **Al** is given approximately.

Mechanical properties under T=20°C for grade D20 (Д20)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Plate , GOST 17232-99			275		12			Guenching
Plate , GOST 17232-99			370	275	8			Quenching and artificial aging

Brinell hardness for D20 (Д20) ,	HB 10 ⁻¹ = 100 MPa
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Physical properties for grade D20 (Д20)

T	E 10 ⁻⁵	α 10 ⁶	λ	ρ	C	R 10 ⁹
Grade	MPa	1/Grade	Watt/(m·Grade)	kg/m ³	J/(kg·Grade)	Ohm·m
20				3845		

Specification :

Mechanical properties :

- σ_B - Tensile strength , [MPa]
- σ_T - Yield stress , [MPa]
- δ_5 - Specific elongation at fracture , [%]
- ψ - Reduction of area , [%]
- KCU** - Impact strength , [kJ / m²]
- HB** - Brinell hardness , [MPa]

Physical properties :

- T** - Test temperature , [Grade]
- E** - Young modulus , [MPa]

α - Coefficient of linear expansion (range 20° - T) , [1/Grade]

λ - Thermal (heat) condition coefficient , [Watt/(m·Grade)]

ρ - Density , [kg/m³]

C - Specific heat (range 20° - T) , [J/(kg·Grade)]

R - Electrical resistance , [Ohm·m]

Database of steels and alloys (Marochnik) contains information about chemical composition and properties more then 2500 steels and alloys (stainless steel, alloy steel, carbone steel, structural steel, tool steel, cast iron, aluminum alloy, titanium alloy, copper alloy, nickel alloy, magnesium alloy and others).

Helpfull for specialists in grade technology, structural engineer, mechanical engineer, metallurgy and metal trader

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