

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 1201 (1201).

Grade :	1201 (1201)
Classification :	Aluminium wrought alloys
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Chemical composition in % for grade 1201 (1201)

Fe	Si	Mn	V	Ti	Al	Cu	Zr	Mg	Zn	Impurity
max 0.3	max 0.2	0.2 - 0.4	0.05 - 0.15	0.02 - 0.1	91.68 - 93.83	5.8 - 6.8	0.1 - 0.25	max 0.02	max 0.1	other, each 0.05; all 0.15

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

Mechanical properties under T=20°C for grade 1201 (1201)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet			440	350	8			

Technological properties for grade 1201 (1201)

Weldability:	without limitations.
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Physical properties for grade 1201 (1201)

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				2850		

Equivalent steels for grade 1201 (1201)

Warning! Indicated both exact and nearest equivalents.

USA	Japan	Inter
-	JIS	ISO
AA2219	2219	2219 AlCu6Mn

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 / m ²]
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/m ³]
C	- Specific heat (range 20° - T) , [J/(kg·Grade)]
R	- Electrical resistance , [Ohm·m]

Weldability :

without limitations	- welding is done without heating and subsequent heat treating
limited weldability	- welding is possible under heating up to 100-120 grade and subsequent heat treating
hard weldability	- obtaining the quality welding needs the additional operations: heating up to 200-300 grade; the heat treating is annealing

Database of steels and alloys (Marochnik) contains information about chemical composition and properties more than 2500 steels and alloys (stainless steel, alloy steel, carbon 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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