

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AK6 (AK6).

Grade :	AK6 (AK6)(1360)
Classification :	Aluminium wrought alloys
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Chemical composition in % for grade AK6 (AK6)

Fe	Si	Mn	Ni	Ti	Al	Cu	Mg	Zn	Impurity
max 0.7	0.7 - 1.2	0.4 - 0.8	max 0.1	max 0.1	93.3 - 96.7	1.8 - 2.6	0.4 - 0.8	max 0.3	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 AK6 (AK6)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe, GOST 18482-79			285-355		8-10			
Bar, GOST 21488-97			355		12			Quenching and artificial aging
Bar, GOST 51834-2001			390-430	275-325	10			Quenching and artificial aging
Bar, GOST 51834-2001			375	265	12			Quenching and artificial aging
Profile, GOST 8617-81			353		12			

Brinell hardness for AK6 (AK6) ,	HB 10 ⁻¹ = 95 - 100 MPa
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Physical properties for grade AK6 (AK6)

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	0.72			2750		41
100		21.4	180		838	

Equivalent steels for grade AK6 (AK6)

Warning! Indicated both exact and nearest equivalents.

USA	Japan	France	England	European	Italy	Poland	Czechia
-	JIS	AFNOR	BS	EN	UNI	PN	CSN
2117	2117	A-U2G	L86	ENAW-ALCuMg0.5	P-ALCu2.5MgSi	ALCu2SiMn	424206

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]

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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