

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AK7 (AK7).

Grade :	AK7 (AK7) (АП9В)
Classification :	Aluminium casting alloys
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Chemical composition in % for grade AK7 (AK7)

Fe	Si	Mn	Ni	Al	Cu	Mg	Zn	Impurity
max 1.3	6 - 8	0.2 - 0.6	max 0.3	87.6 - 93.6	max 1.5	0.2 - 0.5	max 0.5	all 3.3

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

Mechanical properties under T=20°C for grade AK7 (AK7)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Casting, GOST 1583-93			127-196		0.5-1			

Brinell hardness for AK7 (AK7) , Casting GOST 1583-93	HB 10⁻¹ = 50 - 75 MPa
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Equivalent steels for grade AK7 (AK7)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	China	Sweden	Poland	Czechia
-	DIN, WNr	JIS	AFNOR	BS	EN	UNI	GB	SS	PN	CSN
356 357.0 A03560	G-ALSi12(Cu) G-ALSi7Mg	AC4B	A-S10G A-S7G	LM25	ENAC-42000 ENAC-ALSi7Mg	GAISi7Mg	HZL101 ZL101 ZL11	ALSi7MgFe	ALSi7Mg	424332

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]

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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