

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AK9s (AK9c).

Grade :	AK9s (AK9c)
Classification :	Aluminium casting alloys
Equivalent grades:	Is absent

Chemical composition in % for grade AK9s (AK9c)

Fe	Si	Mn	Ni	Al	Cu	Pb	Mg	Zn	Sn	Impurity
max 1	8 - 10.5	0.2 - 0.5	max 0.1	86.79 - 91.6	max 0.5	max 0.05	0.2 - 0.35	max 0.3	max 0.01	all 1.8

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

Mechanical properties under T=20°C for grade AK9s (AK9c)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
cast in a metal mould, GOST 1583-93			196		1.5			Ageing
cast in a metal mould, GOST 1583-93			235		3.5			Quenching and artificial aging

Brinell hardness for AK9s (AK9c) , cast in a metal mould GOST 1583-93	HB 10⁻¹ = 70 MPa
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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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