

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AD35 (АД35).

Grade :	AD35 (АД35) (1350)
Classification :	Aluminium wrought alloys
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Chemical composition in % for grade AD35 (АД35)

Fe	Si	Mn	Cr	Ti	Al	Cu	Mg	Zn	Impurity
max 0.5	0.7 - 1.3	0.4 - 1	max 0.25	max 0.1	95.35 - 98.3	max 0.1	0.6 - 1.2	max 0.2	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 AD35 (АД35)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe, GOST 18482-79			200	100	14			Hardening and ageing
Pipe, GOST 18482-79			270	200	10			Quenching and artificial aging
Bar, GOST 21488-97			195	110	12			Hardening and ageing
Bar, GOST 21488-97			315	245	8			Quenching and artificial aging
Profile, GOST 8617-81	to 100		314	245	8			Quenching and artificial aging
Profile, GOST 8617-81			196	108	12			

Physical properties for grade AD35 (АД35)

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				2700		

Equivalent steels for grade AD35 (АД35)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Sweden	Poland	Czechia	Austria	Inter
-	DIN, WNr	JIS	AFNOR	BS	EN	UNI	SS	PN	CSN	ONORM	ISO
A96061	3.2315	6061	6082	6082	Al-P6082	PAISi1MgMn	AlSi1MgMn	AlSi1MgMn	ONZ424400	AlMgSi1	6082
AA6351	AlMgSi AlMgSi1										AlSi1MgMn

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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