

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AD (АД).

Grade :	AD (АД) (1015)
Classification :	Technical aluminium
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Chemical composition in % for grade AD (АД)

Mn	Ti	Al	Cu	Zn	Impurity	-
max 0.05	max 0.05	min 99	max 0.05	max 0.1	other, each 0.05; all 1.5	Fe + Si < 1

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

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe, GOST 18482-79			60		20			
Bar, GOST 21488-97			60		25			
Band annealed , GOST 13726-97			60		20-30			
Band cold-worked , GOST 13726-97			130-145		3-5			
Profile, GOST 8617-81			59		20			
Plate , GOST 17232-99			64-78		15-18			

Physical properties for grade AD (АД)

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				2710		

Equivalent steels for grade AD (АД)

Warning! Indicated both exact and nearest equivalents.

Inter
ISO
1200 A199.0

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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