

Database of Steel and Alloy (Marochnik)

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Characteristics for grade A8 (A8).

Grade :	A8 (A8)
Classification :	Primary aluminium
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Chemical composition in % for grade A8 (A8)

Fe	Si	Mn	Ti	Al	Cu	Mg	Zn	Ga	Impurity
max 0.12	max 0.1	max 0.02	max 0.01	min 99.8	max 0.01	max 0.02	max 0.04	max 0.03	other, each 0.02;

Mechanical properties under T=20°C for grade A8 (A8)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe annealed , GOST 18475-82			60		20			
Pipe cold-worked , GOST 18475-82			80		4-5			

Physical properties for grade A8 (A8)

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 A8 (A8)

Warning! Indicated both exact and nearest equivalents.

USA	European
-	EN
Aluminium1080 Aluminium1080A	ENAW-1080A

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 $20^{\circ} - T$) , [1/Grade]
- λ - Thermal (heat) condition coefficient , [Watt/(m·Grade)]
- ρ - Density , [kg/m³]
- C** - Specific heat (range $20^{\circ} - T$), [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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