

Database of Steel and Alloy (Marochnik)

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[Home](#) [European steel grades](#) [Steel and Alloy](#) [Search](#) [Equivalent grades](#) [Grading](#) [GOST Standard](#) [Contacts](#)

YOU HERE: [Steel and Alloy](#) -> [Aluminium alloy](#)

Characteristics for grade AMg11 (AMr11).

Grade :	AMg11 (AMr11) (АЛ22)
Classification :	Aluminium casting alloys
Equivalent grades:	Is absent

Chemical composition in % for grade AMg11 (AMr11)

Fe	Si	Ti	Al	Zr	Be	Mg	Zn	Impurity
max 1.2	0.8 - 1.2	0.05 - 0.15	84.28 - 88.62	max 0.2	0.03 - 0.07	10.5 - 13	max 0.1	all 1.3

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

Mechanical properties under T=20°C for grade AMg11 (AMr11)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Casting, GOST 1583-93			176-225		1-1.5			

Brinell hardness for AMg11 (AMr11) , Casting GOST 1583-93	HB 10 ⁻¹ = 90 MPa
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Technological properties of the material AMg11 (AMr11) .

Linear shrinkage :	1.2 %
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Physical properties for grade AMg11 (AMr11)

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	0.7			2500		103
100		24.5	88		880	

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]

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/m³]

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 than 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

[Top](#)

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