

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AN-2.5 (AH-2.5).

Grade :	AN-2.5 (AH-2.5)
Classification :	Aluminium antifriction alloys
Equivalent grades:	Is absent

Chemical composition in % for grade AN-2.5 (AH-2.5)

Fe	Si	Ni	Al	Cu	Impurity
max 0.5	max 0.4	2.7 - 3.3	95.4 - 97.3	max 0.3	other 0.1

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

Mechanical properties under T=20°C for grade AN-2.5 (AH-2.5)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
cast in a metal mould			115-140	43-65	16-24	27.5-33.5		

Brinell hardness for AN-2.5 (AH-2.5) , cast in a metal mould	HB 10 ⁻¹ = 32 - 40 MPa
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Friction coefficient of the material AN-2.5 (AH-2.5) .

Friction coefficient with oil :	0.0135
Friction coefficient without oil :	0.3

Limiting operating condition of the material AN-2.5 (AH-2.5)

Load	Speed	Load * Speed	Temperature
MPa	m/s	MPa * m/s	Grade
19.5	15		100

Technological properties of the material AN-2.5 (AH-2.5) .

Melting temperature :	620 - 650 °C
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Physical properties for grade AN-2.5 (AH-2.5)

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	0.66	22.6	126	2800		

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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