

Database of Steel and Alloy (Marochnik)

splav.kharkov.com/en

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

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

Characteristics for grade 29NK (29HK).

Grade :	29NK (29HK) (29HK-BИ 29HK-BИ-1 29HK-1)
Classification :	Precision alloy with specified temperature coefficient of linear expansion
Equivalent grades:	Is absent

Chemical composition in % for grade 29NK (29HK)

Fe	C	Si	Mn	Ni	S	P	Cr	Co	Ti	Al	Cu
51.14 - 54.5	max 0.03	max 0.3	max 0.4	28.5 - 29.5	max 0.015	max 0.015	max 0.1	17 - 18	max 0.1	max 0.2	max 0.2

Mechanical properties under T=20°C for grade 29NK (29HK)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Band, GOST 14080-78			490-610		23			

Technological properties of the material 29NK (29HK) .

Melting temperature :	1450 °C
------------------------------	---------

Physical properties for grade 29NK (29HK)

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	1.45			8200		500

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

