

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](#) -> [Titanium](#)

Characteristics for grade VT23 (BT23).

Grade :	VT23 (BT23)
Classification :	Titanium wrought alloy
Equivalent grades:	Is absent

Chemical composition in % for grade VT23 (BT23)

Fe	C	Si	Cr	Mo	V	N	Ti	Al	Zr	O	H	Impurity
0.4 - 0.1	max 0.1	max 0.15	0.8 - 1.4	1.5 - 2.5	4 - 5	max 0.05	84.1 - 89.3	4 - 6.3	max 0.3	max 0.15	max 0.015	other 0.3

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

Mechanical properties under T=20°C for grade VT23 (BT23)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet			1100-1200		10-13			Annealing
Sheet			1450-1600		4-6			Hardening and ageing

Brinell hardness for VT23 (BT23) (annealing), Sheet	HB 10⁻¹ = 255 - 270 MPa
Brinell hardness for VT23 (BT23) (quenching, ageing), Sheet	HB 10⁻¹ = 300 - 420 MPa

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]

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

[Top](#)

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