

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 63 (63).

Grade :	63 (63)
Classification :	Steel for rail transport
Equivalent grades:	Is absent

Chemical composition in % for grade 63 (63)

C	Si	Mn	Ni	S	P	Cr	Cu	As
0.53 - 0.73	0.15 - 0.35	0.6 - 1	max 0.3	max 0.05	max 0.05	max 0.3	max 0.3	max 0.08

Mechanical properties under T=20°C for grade 63 (63)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
, GOST 4121-96			730	370	6			

Brinell hardness for 63 (63) , GOST 4121-96	HB 10⁻¹ = 212 MPa
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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]

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

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