

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](#) -> [High-temperature or heat-resistant steel and alloy](#)

Characteristics for grade 20KH1M1F1BR (20X1M1Φ1БP).

Grade :	20KH1M1F1BR (20X1M1Φ1БP) (ЭП44 20ХМФБ)
Classification :	Relaxation-resistant steel
Equivalent grades:	Is absent

Chemical composition in % for grade 20KH1M1F1BR (20X1M1Φ1БP)

C	Si	Mn	Ni	S	P	Cr	Ce	Mo	V	Nb	Ti	B
0.18 - 0.25	max 0.37	0.5 - 0.8	max 0.3	max 0.03	max 0.03	1 - 1.5	0.05 - 0.1	0.8 - 1.1	0.7 - 1	0.05 - 0.15	max 0.06	max 0.005

Mechanical properties under T=20°C for grade 20KH1M1F1BR (20X1M1Φ1БP)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 20072-74			780	665	14	50	590	Guenching and drawing

Brinell hardness for 20KH1M1F1BR (20X1M1Φ1БP) (hot-rolled), GOST 20072-74	HB 10⁻¹ = 229 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 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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