

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 08YU (08Ю).

Grade :	08YU (08Ю)
Classification :	High quality structural carbon steel
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Chemical composition in % for grade 08YU (08Ю)

C	Si	Mn	S	P	Al
max 0.07	max 0.03	max 0.35	max 0.025	max 0.02	0.02 - 0.07

Mechanical properties under T=20°C for grade 08YU (08Ю)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet heat-treatment, GOST 4041-71	4 - 8		360		36			
Pipe, GOST 10705-80			255	174	30			
Strip, GOST 1577-93	6 - 60		290	175	35	60		Normalizing

Brinell hardness for 08YU (08Ю) , Sheet GOST 4041-71	HB 10 ⁻¹ = 118 MPa
Brinell hardness for 08YU (08Ю) (annealing) , Strip GOST 1577-93	HB 10 ⁻¹ = 131 MPa

Technological properties for grade 08YU (08Ю)

Weldability:	without limitations.
Flakes :	not predisposed
Temper brittleness:	not predisposed

Equivalent steels for grade 08YU (08Ю)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Spain	Sweden	Poland	Romania	Czechia	Finland	Austria	Australia
-	DIN,WNr	JIS	AFNOR	BS	EN	UNI	UNE	SS	PN	STAS	CSN	SFS	ONORM	AS
A619 A620	1.0338 1.0346	CR4 SPCC	3C DC03	1449- 12CR	1.0330 1.0347	DC01 DC03	AP04 DC03	1142 1147	08J 08JA	A3k	11305 11321	RACOLD03F RACOLD04F	St02F St04F	CA2 CA3
K00040	1.0347 DC03 DC04 DC04G1 RRSt3 St12 St14 St4	SPCE	E ES FeP01	1449- 1CR 1449- 3CR 1CS 1HR 1HS 2HR 3HR	DC01 DC03 E FeP03 FeP04	DC04 FeP02 FeP04	DC04							CA4 HA3 HA4N

[illegible]

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]

Weldability :

without limitations	- welding is done without heating and subsequent heat treating
limited weldability	- welding is possible under heating up to 100-120 grade and subsequent heat treating
hard weldability	- obtaining the quality welding needs the additional operations: heating up to 200-300 grade; the heat treating is annealing

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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