

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](#) -> [Structural steel](#)

Characteristics for grade 10G2S1D (10Г2С1Д).

Grade :	10G2S1D (10Г2С1Д)
Classification :	Low alloy structural steel for welding construct
Equivalent grades:	Is absent

Chemical composition in % for grade 10G2S1D (10Г2С1Д)

C	Si	Mn	Ni	S	P	Cr	N	Cu	As
max 0.12	0.8 - 1.1	1.3 - 1.65	max 0.3	max 0.04	max 0.035	max 0.3	max 0.012	0.15 - 0.3	max 0.08

Mechanical properties under T=20°C for grade 10G2S1D (10Г2С1Д)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet, GOST 19282-73	5 - 9		500	350	21		650	
Rolled stock	4		500		21			

Technological properties for grade 10G2S1D (10Г2С1Д)

Weldability:	without limitations.
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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]

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 ia annealing

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,

10G2S1D (10Г2С1Д) - Low alloy structural steel for welding construct. Marochnik
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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