

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 14G2 (14Г2).

Grade :	14G2 (14Г2)
Substitute:	15XCHД
Classification :	Low alloy structural steel for welding construct
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Chemical composition in % for grade 14G2 (14Г2)

C	Si	Mn	Ni	S	P	Cr	N	Cu	As
0.12 - 0.18	0.17 - 0.37	1.2 - 1.6	max 0.3	max 0.04	max 0.035	max 0.3	max 0.008	max 0.3	max 0.08

Temperature of critical points for grade 14G2 (14Г2).

$Ac_1 = 709$, $Ac_3(Ac_m) = 825$

Mechanical properties under T=20°C for grade 14G2 (14Г2)

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		470	340	21			
Rolled stock	4		470		21			

Technological properties for grade 14G2 (14Г2)

Weldability:	limited weldability.
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Equivalent steels for grade 14G2 (14Г2)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Spain	Sweden	Bulgaria	Hungary	Romania	Czechia	Austria
-	DIN,WNr	JIS	AFNOR	BS	EN	UNI	UNE	SS	BDS	MSZ	STAS	CSN	ONORM
A414(F) A414(G) A515(70) A516(70) Gr.B Gr.C K02203 K02403 K02700 K02704 K03101 K03102 K03103	1.0481 17Mn4 ASt45 P295GH	SB46 SB49 SG365 SGV410 SGV450 SGV480	A48AP A48CP A48FP P295GH	224-430 224- 460B 440 P295GH	1.0481 P295GH	Fe460-1KG Fe460-1KW Fe510-1KG Fe510-1KT Fe510-1KW Fe510-2KG Fe510-2KT Fe510-	A47RCI RAII	2102	16GS P295GH	P295GH	K460	11478 13030	17Mn4KW

2KW
P295GH

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, 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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