

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 18G2AF (18Г2АФ).

Grade :	18G2AF (18Г2АФ)
Classification :	Low alloy structural steel for welding construct
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Chemical composition in % for grade 18G2AF (18Г2АФ)

C	Si	Mn	Ni	S	P	Cr	V	N	Cu	As
0.14 - 0.22	max 0.17	1.3 - 1.7	max 0.3	max 0.04	max 0.035	max 0.3	0.08 - 0.15	0.015 - 0.03	max 0.3	max 0.08

Mechanical properties under T=20°C for grade 18G2AF (18Г2АФ)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet			600	450	19			

Technological properties for grade 18G2AF (18Г2АФ)

Weldability:	without limitations.
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Equivalent steels for grade 18G2AF (18Г2АФ)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Spain	China	Sweden	Hungary	Poland	Czechia	Switzerland
-	DIN,WNr	JIS	AFNOR	BS	EN	UNI	UNE	GB	SS	MSZ	PN	CSN	SNV
A350(LF6CL1) A350(LF6CL2) A350(LF6CL3) K02900 K12202	22MnV6 P355N P460N	SM520B SM520C	P460N	55F P460N	P460N P460NH S460N	FeE460KG P460N	AE460KG P460N	15MnVNR 18MnMoNbR Q460C	2143	E460D	18G2AV 19G2FA	13220	StE47

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 treeting
limited weldability	- welding is possible under heating up to 100-120 grade and subsequent heat treeting
hard weldability	- obtaining the quality welding needs the additional operations:heating up to 200-300 grade; the heat treeting 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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