

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 15GF (15ГФ).

Grade :	15GF (15ГФ)
Classification :	Low alloy structural steel for welding construct
Equivalent grades:	Go here

Chemical composition in % for grade 15GF (15ГФ)

C	Si	Mn	Ni	S	P	Cr	V	N	Cu	As
0.12 - 0.18	0.17 - 0.37	0.9 - 1.2	max 0.3	max 0.04	max 0.035	max 0.3	0.05 - 0.12	max 0.012	max 0.3	max 0.08

Mechanical properties under T=20°C for grade 15GF (15ГФ)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet, GOST 19282-73			510	375	21			
Sheet	10 - 32		480	340	21			

Technological properties for grade 15GF (15ГФ)

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

Equivalent steels for grade 15GF (15ГФ)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Spain	Sweden	Bulgaria	Hungary	Poland	Romania	Finland
-	DIN,WNr	JIS	AFNOR	BS	EN	UNI	UNE	SS	BDS	MSZ	PN	STAS	SFS
A588	1.0562	SM490A	E355R/FP	P355N	1.0562	FeE355KG	AE355DD	2106	10G2SBSBB	52D	18G2A	OCS355.5a	RAEX355N
A633Gr.C	P355N	SM490B	FeE355KGN		FeE355A	FeE355KKW	AE355KG		10G2SFTSFT				RAEX384P
A852	StE355	SM490C	P355N		P355N	P355N	P355N						
K01600		SM490YA	S355M		S355N								
K02700		SM490YB	S355ML										
K02701		STK490	S355N										
K02803			S355NL										
K11430													

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

15GF (15ГФ) - Low alloy structural steel for welding construct. Marochnik
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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