

Database of Steel and Alloy (Marochnik)

splat.kharkov.com/en

[Home](#) [European steel grades](#) [Steel and Alloy](#) [Search](#) [Equivalent grades](#) [Grading](#) [GOST Standard](#) [Contacts](#)

YOU HERE: [Steel and Alloy](#) -> [Tool steel](#)

Characteristics for grade 60KHG (60XГ).

Grade :	60KHG (60XГ)
Substitute:	55X
Classification :	Tool steel for roller
Equivalent grades:	Is absent

Chemical composition in % for grade 60KHG (60XГ)

C	Si	Mn	Ni	S	P	Cr
0.55 - 0.65	0.17 - 0.37	0.8 - 1	max 0.4	max 0.04	max 0.04	1 - 1.3

Temperature of critical points for grade 60KHG (60XГ).

$Ac_1 = 750$, $Ac_3(Ac_m) = 800$, $Mn = 250$

Mechanical properties under T=20°C for grade 60KHG (60XГ)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Roll	до Ø 600	K	800-910	440-550	18	38	350	

Brinell hardness for 60KHG (60XГ) (normalize, tempering) ,	HB 10 ⁻¹ = 229 - 285 MPa
Brinell hardness for 60KHG (60XГ) (quenching, tempering) ,	HB 10 ⁻¹ = 255 - 302 MPa

Technological properties for grade 60KHG (60XГ)

Weldability:	is not used.
Flakes :	predisposed
Temper brittleness:	predisposed

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 / m²]

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

[Top](#)

© 2003 - 2013 All rights reserved. [About program.](#)

The entire risk as to use of the Database of Steel and Alloy (Marochnik) content is assumed by you the user

