

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

Characteristics for grade 38KH2N3M (38X2H3M).

Grade :	38KH2N3M (38X2H3M)
Classification :	Alloy structural steel
Equivalent grades:	Is absent

Chemical composition in % for grade 38KH2N3M (38X2H3M)

C	Si	Mn	Ni	S	P	Cr	Mo
0.35 - 0.42	0.17 - 0.37	0.5 - 0.8	2.75 - 3.25	max 0.035	max 0.03	1 - 1.5	0.3 - 0.4

Mechanical properties under T=20°C for grade 38KH2N3M (38X2H3M)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Forging	100 - 300		1000	900	12	35	600	Guenching and drawing

Brinell hardness for 38KH2N3M (38X2H3M) (quenching, tempering) ,	HB 10 ⁻¹ = 277 - 321 MPa
--	-------------------------------------

Technological properties for grade 38KH2N3M (38X2H3M)

Weldability:	hard weldability.
Flakes :	predisposed
Temper brittleness:	weakly 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 / 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 is 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

