

Database of Steel and Alloy (Marochnik)

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Characteristics for grade R6M3 (P6M3).

Grade :	R6M3 (P6M3)
Classification :	High speed tool steel
Equivalent grades:	Is absent

Chemical composition in % for grade R6M3 (P6M3)

C	Si	Mn	Ni	S	P	Cr	Mo	W	V
0.85 - 0.95	max 0.5	max 0.4	max 0.4	max 0.03	max 0.03	3 - 3.6	3 - 3.6	5.5 - 6.5	2 - 2.5

Temperature of critical points for grade R6M3 (P6M3).

$Ac_1 = 800$, $Ac_3(Ac_m) = 860$, $Ar_1 = 720$

Brinell hardness for R6M3 (P6M3) (annealing) ,

HB 10⁻¹ = 255 MPa

Physical properties for grade R6M3 (P6M3)

T	E 10 ⁻⁵	α 10 ⁶	λ	ρ	C	R 10 ⁹
Grade	MPa	1/Grade	Watt/(m·Grade)	kg/m ³	J/(kg·Grade)	Ohm·m
20				8000		

Specification :

Physical properties :

- T - Test temperature , [Grade]
- E - Young modulus , [MPa]
- α - Coefficient of linear expansion (range 20° - T) , [1/Grade]
- λ - Thermal (heat) condition coefficient , [Watt/(m·Grade)]
- ρ - Density , [kg/m³]
- C - Specific heat (range 20° - T) , [J/(kg·Grade)]
- R - Electrical resistance , [Ohm·m]

Database of steels and alloys (Marochnik) contains information about chemical composition and properties more than 2500 steels and alloys (stainless steel, alloy steel, carbon 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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