



Datasheet of product

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Product information

Product: Grinding Rod
 Standard: DIN1013
 Manufacturing process: Hot Rolled in 1100 - 850°C
 Normalizing : 870 - 900°C/air

Material designation

Material standard	Europe	Germany		USA	France	Italy	Grait Britain	Sweden	Japan
	EN	DIN	WR	AISI/SAE/ASTM	AFNOR	UNI	BS	SS	JIS
100Cr6	100Cr6	-	1.3505	52100	-	-	2S135	2258	-
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Chemical composition

Material	%C	%Cr	%Mn	%Si	%P	%S	%Cu	%Ni	%Mo	%Sn
100Cr6	0.98-1.05	1.35-1.60	0.25-0.40	0.20-0.35	≤0.020	0.003-0.008	≤0.30	≤0.20	≤0.06	≤0.06
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Diameters and tolerances

Conditional diameter	Man. process	limit deviation	permissible variations for dimension and form	Cross-Section (Cm ²)	Weight (Kg/m)	Surface area (Cm ² /m)
20	Hot Rolled	±0.4	0.65	3.14	2.47	628
25	Hot Rolled			4.91	3.85	785
30	Hot Rolled	±0.6	1.00	7.07	5.55	942
35	Hot Rolled			9.62	7.55	1100
40	Hot Rolled	±0.8	1.3	12.6	9.86	1260
45	Hot Rolled			15.9	12.5	1410
50	Hot Rolled			19.6	15.4	1570
55	Hot Rolled	±1.0	1.6	23.8	18.7	1730
60	Hot Rolled			28.3	22.2	1880
65	Hot Rolled			33.2	26.0	2040
70	Hot Rolled			38.5	30.2	2200
80	Hot Rolled	±1.3	2.1	50.3	39.5	2510
90	Hot Rolled			63.6	49.9	2830
100	Hot Rolled			78.5	61.7	3140
110	Hot Rolled	±1.5	2.5	95	74.6	3460
120	Hot Rolled			113	88.8	3770
150	Hot Rolled	±2.0	3.2	177	139	4710

Straightness

Nominal Diameter (mm)		Permissible deviation from straightness (q)
---	25≤	Not stipulated
25	80≤	0.004.L
80	150≤	0.0025.L

Hardness

Surface hardness (HB): 380 - 400

Metallographic analysis

The structure is tempered martensitic with low percentage of austenite.

Pictures

