



Material data sheet

Grade: : **G 20**

Chemical Data

Co	[Weight- %]	:	11,5
WC (Incl. Doping)	[Weight- %]	:	88,5

Physical Data

Density		[g/cm ³]	:	14,35	±0,15
Hardness	HV 30		:	1300	±40
Transverse Rupture Strength		[N/mm ²]	:	2600	
Magnetic Saturation	4πσ	[μTm ³ /kg]	:	19,3	±1,5
Coercive Force	HC	[kA/m]	:	14	±2,5
K _{IC} (Palmqvist)		[MNm ^{-3/2}]	:	n.m.	

Metallographic Data

Porosity	A (<10μm)	:	≤02
	B (>10μm)	:	-
	C	:	-

Microstructure

Tungsten Carbide α	:	average grain size 3,0μm
Binding Phase β	:	uniform distributed

etched 1000x



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