



Material data sheet

Grade: : **KFM 38**

Chemical Data

Co	[Weight- %]	:	8,0
WC (Incl. Doping)	[Weight- %]	:	92,0

Physical Data

Density		[g/cm ³]	:	14,6	±0,15
Hardness	HV 30		:	2000	±50
Transverse Rupture Strength		[N/mm ²]	:	4300	±500
Magnetic Saturation	4πσ	[μTm ³ /kg]	:	12,0	±1,5
Coercive Force	HC	[kA/m]	:	36,5	±2,5
K_{IC} (Palmqvist)		[MNm ^{-3/2}]	:	9,2	±0,3

Metallographic Data

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

Microstructure

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

etched 1000x



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