

Material data sheet

Grade: : **KFM 40**

Chemical Data

Co	[Weight- %]	:	10,0
WC (Incl. Doping)	[Weight- %]	:	90,0

Physical Data

Density		[g/cm ³]	:	14,45	±0,15
Hardness	HV 30		:	1610	±40
Transverse Rupture Strength		[N/mm ²]	:	> 3600	
Magnetic Saturation	4πσ	[μTm ³ /kg]	:	16,0	±1,2
Coercive Force	HC	[kA/m]	:	20,1	±2,3
K _{IC} (Palmqvist)		[MNm ^{-3/2}]	:	10,5	

Metallographic Data

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

Microstructure

Tungsten Carbide α	:	Ø 0,6 μm
Binding Phase β	:	uniform distributed

etched 1000x



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