

Material data sheet

Grade: : **KFM 44**

Chemical Data

Co	[Weight- %]	:	12,0
WC (Incl. Doping)	[Weight- %]	:	88,0

Physical Data

Density		[g/cm ³]	:	14,15	±0,15
Hardness	HV 30		:	1680	±40
Transverse Rupture Strength		[N/mm ²]	:	> 3800	
Magnetic Saturation	4ps	[μTm ³ /kg]	:	18,7	±1,7
Coercive Force	HC	[kA/m]	:	26,3	±2,8
K_{IC} (Palmqvist)		[MNm ^{-3/2}]	:	10,0	

Metallographic Data

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

Microstructure

Tungsten Carbide α	:	Ø 0,5 μm
Binding Phase β	:	uniform distributed

etched 1000x

