



Material data sheet

Grade: : **KFM 44**

Chemical Data

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

Physical Data

Density [g/cm³] : 14,15 ±0,15
Hardness HV 30 : 1680 ±40
Transverse Rupture Strength [N/mm²] : 3800
Magnetic Saturation $4\pi\sigma$ [$\mu\text{Tm}^3/\text{kg}$] : 18,7 ±1,7
Coercive Force HC [kA/m] : 26,3 ±2,8
 K_{IC} (Palmqvist) [$\text{MNm}^{-3/2}$] : 10,0

Metallographic Data

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

Microstructure

Tungsten Carbide α : average grain size 0,5 μm
Binding Phase β : uniform distributed

etched 1000x



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