

AFC Hartmetall GmbH & Co KG

Grade

AF K34SF



ISO-Range : K10 - K30

Chemical Data

Co (%) : 9

WC incl. Doping (%) : 91

Physical Data

Density (g/cm³) : 14,3

Hardness

HV 30 : 2000

HRA : 94,4

Transverse Rupture Strength

(N/mm²) : >3900

(1000 psi) : >566

K_{Ic}* (Shetty)

(MNm^{-3/2}) : 8,5

Metallographic Data

Porosity

≤ 10 μm A : ≤02

10 - 25 μm B : 00

C : 00

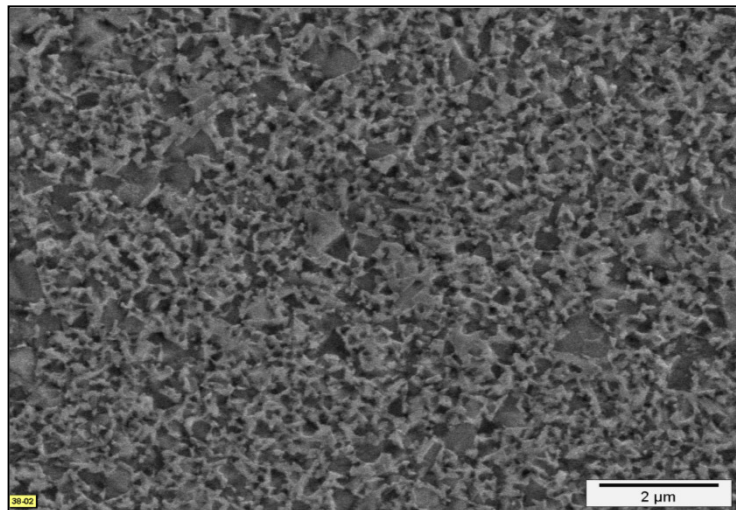
Microstructure

Tungsten Carbide α : Ø <0,5 μm

Binding Phase β : unif. distr.

Mixed Carbide γ : -

Eta Phase η : -



Microstructure 2' Etching

SEM-Magnification 8.500x

Areas of Application

Aluminium alloys

Plastics

Fibre reinforced materials

* Since stated values for the K_{Ic} depend on specimen geometry and preparation, a direct comparison with values determined by using a differing method is not permitted.