Title (en)

Blade member of tungsten carbide based cemented carbide with hard coating.

Title (de)

Hartbeschichtetes Schneidkörperblatt aus zementiertem Karbid auf der Basis von Wolframkarbid.

Title (fr)

Lame en carbure de tungstène fritté avec un revêtement dur.

Publication

EP 0487008 A2 19920527 (EN)

Application

EP 91119676 A 19911119

Priority

JP 31487490 A 19901120

Abstract (en)

There is disclosed a blade member of tungsten carbide based cemented carbide with a hard coating, which includes a substrate of tungsten carbide based cemented carbide and a hard coating of one or more coating layers deposited thereon. The substrate contains a binder phase of 5 to 13% by weight of cobalt, and a hard dispersed phase of no greater than 17 % by weight of hard-phase constituents, and a balance tungsten carbide. Each coating layer is formed of one substance of a carbide, a nitride and an oxide of a metal in IVA, VA and VIA of the Periodic Table. The substrate is such that a parameter R, cal/(cm)(sec), defined by (lambda x sigma)/(sigma x E) and representing thermal shock resistance of the substrate takes a value of no less than 100, wherein lambda , sigma , alpha and E denote thermal conductivity, transverse rupture strength, coefficient of thermal expansion and Young's modulus of the substrate, respectively.

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C23C 30/00

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CPC (source: EP)

C23C 30/005 (2013.01)

Cited by

US7422803B2; US2013152481A1; US9044811B2; US2013164527A9; US8741428B2; US7927663B2; WO2010093612A1

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