

Title (en)

CERMETS BASED ON TRANSITION METAL BORIDES, THEIR PRODUCTION AND USE.

Title (de)

Cermets auf Uebergangsmetallboridbasis, ihre Herstellung und Anwendung.

Title (fr)

CERMETS A BASE DE BORURES DES METAUX DE TRANSITION, LEUR FABRICATION ET LEURS APPLICATIONS.

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Application

EP 92912846 A 19920626

Priority

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Abstract (en)

[origin: WO9300452A1] A cermet comprising: 1) a hard phase consisting of a basic transition metal boride, a mixture of basic transition metal borides or a composite transition metal boride; 2) a binding phase consisting of a pure metal selected from Fe, Ni, Co and Cr, or an alloy thereof; and characterized in that it further comprises: 3) a dispersion of oxide particles of the transition metal making up over half of the hard phase of 1), wherein part of the oxygen in said oxide may be replaced with nitrogen and/or carbon; and 4) a dispersion of oxide particles of a metal selected from aluminium and the metals in groups IIA and IIIB of the periodic system, it being possible the oxides forming dispersions 3) and 4) to combine into complex oxides. Said cermets may be used to produce cutting or drilling tools and expendable parts.

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