

Title (en)

COMPOSITE MATERIAL CONSISTING OF A NATURAL MATRIX LOADED WITH NON-OXIDE AND OXIDE PARTICLES

Title (de)

VERBUNDMATERIAL AUS EINER MIT NICHTOXID- UND OXIDTEILCHEN BELADENEN NATÜRLICHEN MATRIX

Title (fr)

MATERIAU COMPOSITE COMPOSE D'UNE MATRICE ORGANIQUE CHARGEE PAR DES PARTICULES NON OXYDES ET DES PARTICULES OXYDES

Publication

EP 1814936 A1 20070808 (FR)

Application

EP 05815122 A 20051026

Priority

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Abstract (en)

[origin: WO2006045959A1] The inventive composite material comprises an organic matrix in which mineral particles containing non-oxide near-spherical particles whose size ranges from 0.01 to 4 µm and oxide particles are uniformly distributed. Said organic matrix is selected from a group of thermoplastic and thermosetting polymers, wherein the non-oxide particles are embodied in the form of ceramic particles consisting of carbides, nitrides and/or refractory metal carbonitrides or a mixture of selected refractory metals selected, for example, from titanium, zirconium, hafnium, tantalum, niobium, tungsten, molybdenum, boron and silicon. Said composite material can form a part (5) of a mechanical part used, for example for a turbocompressor or for a power-assisted steering pump, in particular for automobile engineering. The mechanical part can be reinforced, for example by an insert (6) which is made of a metal, polymer or a composite material and is overmoulded with a composite material.

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Citation (search report)

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