

Title (en)

Composite material with metallic and reinforcing fibers and process for producing the same

Title (de)

Verbundwerkstoff aus einem metallischen Matrixwerkstoff und festigkeitserhöhenden Langfasern und Verfahren zu seiner Herstellung

Title (fr)

Matériau composite à matrice métallique renforcé par des fibres longues et procédé pour sa fabrication

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0563424A1] The invention relates to a composite material from a metallic matrix material and reinforcing staple fibres and to a process for producing the same. The composite material consists of a brittle intermetallic compound which consists of at least one ductile and low-melting component and at least one component from the elements Al, Ni, Co, Nb or Fe, and of staple fibres which are arranged in the matrix material so as to be at a distance from each other on all sides. The production involves, in the first instance, employing a powder mix which contains the elemental components of the intermetallic compound to produce a composite material green body with the reinforcing staple fibres. This composite material green body is machined until its shape is close to that of the sand mould corresponding to the component and is then reaction-sintered to form the intermetallic compound.

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