

Title (en)

Composite material including alumina-silica short fibers as reinforcing material and copper in its aluminum alloy matrix metal with the proportions thereof being related.

Title (de)

Verbundwerkstoff mit kurzen Aluminiumoxyd-Siliziumdioxid-Verstärkungsfasern und eine Matrice aus einer kupferenthaltenden Aluminiumlegierung mit einem Verhältnis zwischen den verschiedenen Bestandteilen.

Title (fr)

Matériau composite contenant des fibres courtes d'alumine-silice comme matériau de renforcement et avec une matrice en alliage d'aluminium contenant du cuivre avec une corrélation entre les différentes teneurs.

Publication

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Application

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Priority

JP 19341585 A 19850902

Abstract (en)

A composite material is made from alumina - silica type short fibers embedded in a matrix of metal. The percentage fiber volume proportion X % of the alumina - silica type short fibers is between approximately 5% and approximately 50%. The metal is an alloy consisting essentially of a percentage Y% of copper and remainder substantially aluminum. And the inequalities $Y \leq -0.00092 X + 7.85$ and $Y \geq -0.00092 X + 3.55$ are satisfied. The fiber volume proportion of the alumina - silica type short fibers may more desirably be between approximately 5% and approximately 40%. And the alumina - silica type short fibers may be alumina short fibers, or alternatively may be crystalline alumina - silica short fibers, of which the mullite crystalline amount may be at least about 45%. Or the alumina - silica type short fibers may be amorphous alumina - silica short fibers.

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IPC 8 full level

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