

Title (en)

Composite material including silicon carbide short fibers as reinforcing material and aluminum alloy with copper and magnesium as matrix metal.

Title (de)

Verbundwerkstoff aus kurzen Siliciumcarbidfasern als Armierungsmaterial und eine kupfer- und magnesiumhaltige Aluminiumlegierung als Matrixmetall.

Title (fr)

Matériau composite comportant des filaments courts de carbure de silicium comme matière de renforcement et d'un alliage d'aluminium avec cuivre et magnésium comme matrice métallique.

Publication

EP 0207314 A1 19870107 (EN)

Application

EP 86107542 A 19860603

Priority

JP 12078685 A 19850604

Abstract (en)

A composite material is made from silicon carbide short fibers embedded in a matrix of metal. The fiber volume proportion of the silicon carbide short fibers is between approximately 5% and approximately 50%. The metal is an alloy consisting essentially of between approximately 2% to approximately 6% of copper, between approximately 2% to approximately 4% of magnesium, and remainder substantially aluminum. The fiber volume proportion of the silicon carbide short fibers may more desirably be between approximately 5% and approximately 40%; the copper content of the aluminum alloy matrix metal may more desirably be between approximately 2% and approximately 5.5%; and the magnesium content of the aluminum alloy matrix metal may more desirably be between approximately 2% and approximately 3-5%.

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C22C 1/09

IPC 8 full level

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CPC (source: EP)

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C-Set (source: EP)

B22F 2998/00 + **C22C 47/06** + **C22C 47/08**

Citation (search report)

- [A] FR 2030043 A1 19701030 - UNION CARBIDE CORP
- [A] ALUMINIUM, vol. 50, no. 12, 1974, pages 765-770, Dusseldorf, DE; K.F. SAHM: "Herstellung und Eigenschaften kurzfaserverstärkter Aluminiumlegierungen"

Cited by

CN111690848A; US5421087A; US5106702A; DE3700651A1; GB2342926A; GB2342926B

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