

Title (en)

Composite material including alumina short fibers as reinforcing material and aluminium alloy with copper and magnesium as matrix metal.

Title (de)

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

Title (fr)

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

Publication

EP 0204319 A1 19861210 (EN)

Application

EP 86107539 A 19860603

Priority

JP 12078785 A 19850604

Abstract (en)

A composite material is made from alumina short fibers embedded in a matrix of metal. The fiber volume proportion of the alumina short fibers is between approximately 5% and approximately 50%. The metal is an alloy consisting essentially of between approximately 2% and approximately 6% of copper, between approximately 0.5% and approximately 4% of magnesium, and remainder substantially aluminum. The fiber volume proportion of the alumina short fibers may more desirably be between approximately 5% and approximately 40%; the magnesium content of the aluminum alloy matrix metal may more desirably be between approximately 2% and approximately 4%; and desirably the fiber volume proportion of the alumina short fibers may be between approximately 5% and approximately 20%, when the copper content of the aluminum alloy matrix metal should desirably be between approximately 3% and approximately 6%; or alternatively desirably the fiber volume proportion of the alumina short fibers may be between approximately 30% and approximately 40%, when the copper content of the aluminum alloy matrix metal should desirably be between approximately 2% and approximately 5%.

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C22C 1/09

IPC 8 full level

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CPC (source: EP)

C22C 49/06 (2013.01)

Citation (search report)

- [Y] EP 0074067 A1 19830316 - SUMITOMO CHEMICAL CO [JP]
- [Y] CHEMICAL ABSTRACTS, vol. 101, no. 22, 26 November 1984, page 278, abstract no. 196657r, Columbus, Ohio, US; & JP - A - 59 118 864 (TOYO KOGYO CO. LTD. FUCHU) 09-07-1984

Cited by

RU2755353C1; EP0313271A1; US5421087A; CN114737140A; US5106702A; EP0375473A1; FR2639360A1; EP0235574B1

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