

Title (en)

Electrically conductive metal/plastic hybrid comprising a polymer material, a first metal and metal particles of a second metal embedded in the first metal and method of producing such

Title (de)

Elektrisch leitfähige Metall-/Kunststoffmischung mit einem Polymermaterial, einem ersten Metall und Metallpartikel eines zweiten Metalls eingebettet in das erste Metall und Herstellungsverfahren dafür

Title (fr)

Hybride métallique/plastique électriquement conducteur comportant un matériau polymère, premier métal et particules métalliques d'un second métal intégré dans le premier métal et son procédé de production

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Application

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Abstract (en)

The invention relates to an electrically conductive metal/plastic hybrid which comprises a matrix of a polymer material, a network embedded in the matrix and made of a metal having a first melting temperature, and metal particles within the network having a second melting temperature higher than the first melting temperature. Further, the invention relates to a method of producing such a metal/plastic hybrid. Metal/plastic hybrids of the afore-mentioned type are known from the prior art, but in order to achieve high electric conductivity, contain high percentages of the higher melting metal particles, which gives them a high density and a high heat capacity. The invention provides metal/plastic hybrids with a lower density and a lower heat capacity by using aluminium as one component of the metal particles. Furthermore, a method of producing such a metal/plastic hybrid is provided.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] WO 9808362 A1 19980226 - CRAIG HUGH P [GB]
- [A] US 2007012900 A1 20070118 - CALLEN BRIAN WILLIAM [CA], et al

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