

Title (en)
PROCESS FOR PRODUCTION OF ALUMINUM COMPOSITE MATERIAL

Title (de)
VERFAHREN ZUR HERSTELLUNG VON ALUMINIUMVERBUNDSTOFFMATERIAL

Title (fr)
PROCÉDÉ POUR LA PRODUCTION D'UN MATÉRIAU COMPOSITE DE L'ALUMINIUM

Publication
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Application
EP 06732189 A 20060414

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Abstract (en)
[origin: EP1886747A1] The present invention is such that it is an assignment to be solved to provide a process for producing aluminum composite material in which an iron sintered body of much higher adhesion is cast-in inserted with aluminum. A process according to the present invention for producing aluminum composite material is characterized in that it has : a preform molding step of molding a porous iron sintered-material preform by molding an iron powder so that an occupational volumetric fraction becomes from 50% or more to 70% or less, and then by sintering the iron powder, thereby molding a porous iron sintered material preform; and a composite-material forming step of placing said preform in a casting die whose die temperature is from 200 °C or more to 400 °C or less, the preform being preheated at a preheating temperature of from 300 °C or more to 400 °C or less in vacuum, in an inert-gas atmosphere, in a reducing-gas atmosphere, or in a mixture-gas atmosphere of inert gas and reducing gas, and then carrying out casting by means of impregnating the preform with molten aluminum or aluminum alloy by pressurizing the molten aluminum or aluminum alloy by a 2-stage pressurizing method, the 2-state pressurizing method comprising a first pressurizing stage and a second pressurizing stage.

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Citation (search report)
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DE FR

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