

Title (en)

PROCESS FOR MANUFACTURING AN AL/AL3B48C3 COMPOSITE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES AL/ALB48C2 VERBUNDS.

Title (fr)

PROCEDE DE FABRICATION D'UN PIECE EN UN MATERIAU COMPOSITE AL/AL3B48C2

Publication

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Application

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Abstract (en)

[origin: WO2017013087A1] The invention relates to a process for manufacturing a part made of an Al/Al3B48C2 composite material comprising an aluminium matrix in which particles of a mixed carbide of chemical formula Al3B48C2 are dispersed. The process comprises the following steps: a) placing a powder of chemical formula AlB2 in the cavity of a graphite crucible; b) closing the cavity with a graphite element; c) heating the crucible at a temperature at least equal to 960°C and less than or equal to 1400°C in order to obtain the formation of precipitates of the mixed carbide of chemical formula Al3B48C2 in liquid aluminium; d) cooling the crucible in order to solidify the liquid aluminium; e) removal from the crucible; by which means the part made of Al/Al3B48C2 composite material is obtained.

IPC 8 full level

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