

Title (en)

METHOD FOR PRODUCING METAL-CERAMIC BRAKE DISCS

Title (de)

VERFAHREN ZUR HERSTELLUNG METALLKERAMISCHER BREMSSCHEIBEN

Title (fr)

PROCEDE DE FABRICATION DE DISQUES DE FREIN METAL-CERAMIQUE

Publication

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Application

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Abstract (en)

[origin: WO0140674A1] In order to produce a metal-ceramic brake disc, a powder mixture in powdered or pre-solidified form is applied to at least one side of a metallic support body. Said powder mixture contains the following as basic components: a) aluminium and/or powdered aluminium alloy with an average particle size of at least 5 μ m, b) ceramic and/or elemental powder, capable of reacting with aluminium to form aluminide and in addition, optionally c) inert powder which does not react with aluminium under the pressure and temperature conditions used. The powder mixture is then compacted onto the support body using a pressure of between 1 and 100 MPa, at a reaction temperature which is at least sufficient to melt the aluminium powder particles, until a metallic matrix has formed, containing at least 20 % volume aluminide, in which the Al₂O₃ and/or AlN produced is finely distributed and which adheres firmly to the support body.

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