

Title (en)

A1-based composite material having adhesion resistance property and process for producing the same

Title (de)

Verbundwerkstoff auf Aluminiumbasis mit Klebrigbeständigkeit und das Herstellungsverfahren

Title (fr)

Matériau composite à base d'aluminium, ayant une propriété de résistance à l'adhésion, et procédé pour sa production

Publication

EP 0747494 B1 20020313 (EN)

Application

EP 96108948 A 19960604

Priority

JP 13974095 A 19950606

Abstract (en)

[origin: EP0747494A1] An Al alloy piston comprises a piston body and a reinforced portion forming a piston groove. The reinforced portion is composed of Al-based composite material. Namely, Al molten metal (AC8A) forming the piston body was impregnated to the powder compact which is non-sintered compact so as to be solidified so that the reinforced portion was formed. The powder compact is made by compressing atomized powder having the primary crystal Si particles whose mean particle diameter is 10 μ m (microns). To the powder compact Fe-Cr powder particles may be added. Accordingly, the present invention provide Al-based composite material whose adhesion resistance property is improved and the process for producing the same. <IMAGE>

IPC 1-7

C22C 21/02

IPC 8 full level

C22C 47/08 (2006.01); **B22F 3/26** (2006.01); **C22C 21/02** (2006.01)

CPC (source: EP)

B22F 3/26 (2013.01); **C22C 21/02** (2013.01)

Citation (examination)

- EP 0526079 A1 19930203 - TOYO ALUMINIUM KK [JP]
- EP 0592665 A1 19940420 - SUMITOMO ELECTRIC INDUSTRIES [JP], et al
- JP S6425935 A 19890127 - HITACHI LTD
- US 5253625 A 19931019 - DONAHUE RAYMOND J [US], et al
- JP S583946 A 19830110 - TEIKOKU PISTON RING CO LTD

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0747494 A1 19961211; **EP 0747494 B1 20020313**; **EP 0747494 B2 20050824**; DE 69619731 D1 20020418; DE 69619731 T2 20020808; DE 69619731 T3 20060316; JP H08333645 A 19961217

DOCDB simple family (application)

EP 96108948 A 19960604; DE 69619731 T 19960604; JP 13974095 A 19950606