

Title (en)
ABRASION-RESISTANT MEMBER MADE FROM ALUMINUM ALLOY, AND METHOD FOR PRODUCING SAME

Title (de)
ABRIEBFESTES ELEMENT AUS EINER ALUMINIUMLEGIERUNG UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
ÉLÉMENT RÉSISTANT À L'ABRASION EN ALLIAGE D'ALUMINIUM ET SON PROCÉDÉ DE PRODUCTION

Publication
EP 2752502 A4 20150506 (EN)

Application
EP 12828406 A 20120803

Priority
• JP 2011190136 A 20110831
• JP 2012069872 W 20120803

Abstract (en)
[origin: EP2752502A1] Provided is a wear resistant aluminum alloy member. The wear resistant aluminum alloy member of the present invention comprises a substrate comprising an aluminum alloy, and a coated layer coating at least part of a surface of the substrate, and is characterized in that the aluminum alloy has a residual hardness of 120 Hv or more when measured in a room temperature state after held in an atmospheric pressure environment at 400 deg. C for 10 hours; and the coated layer comprises a crystalline Ni-P layer comprising Ni and Ni₃P. This crystalline Ni-P layer can be obtained by heating a Ni-P plated layer, which has been formed on the surface of the substrate by electroless Ni-P plating, for example, at 300 deg. C or more. Compressive residual stress is imparted to the crystalline Ni-P layer. It is preferred that the aluminum alloy contains 1 to 7 % of Fe because a crystalline Ni-P layer having high adhesion can be obtained.

IPC 8 full level
C22C 21/06 (2006.01); **C23C 18/16** (2006.01); **C23C 18/18** (2006.01); **C23C 18/36** (2006.01); **C23C 18/54** (2006.01); **C25D 5/40** (2006.01); **C25D 5/50** (2006.01)

CPC (source: EP)
C22C 21/00 (2013.01); **C22C 21/06** (2013.01); **C23C 18/1651** (2013.01); **C23C 18/1692** (2013.01); **C23C 18/1696** (2013.01); **C23C 18/1844** (2013.01); **C23C 18/1893** (2013.01); **C23C 18/36** (2013.01); **C23C 18/54** (2013.01); **C25D 5/40** (2013.01); **C25D 5/50** (2013.01)

Citation (search report)
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Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 2752502 A1 20140709; EP 2752502 A4 20150506; EP 2752502 B1 20170215; JP 2013064192 A 20130411; JP 5867332 B2 20160224; WO 2013031483 A1 20130307

DOCDB simple family (application)
EP 12828406 A 20120803; JP 2012069872 W 20120803; JP 2012172934 A 20120803