

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

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Application

EP 12828406 A 20120803

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Abstract (en)

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 Ni 3 P. 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

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