

Title (en)

PROCESSES TO REDUCE INTERFACIAL ENRICHMENT OF ALLOYING ELEMENTS UNDER ANODIC OXIDE FILMS AND IMPROVE ANODIZED APPEARANCE OF HEAT TREATABLE ALLOYS

Title (de)

VERFAHREN ZUR REDUZIERUNG DER GRENZFLÄCHENANREICHERUNG VON LEGIERUNGSELEMENTEN UNTER ANODISCHEN OXIDSCHICHTEN UND VERBESSERUNG DES ELOXIERTEN AUSSEHENS VON WÄRMEBEHANDELBAREN LEGIERUNGEN

Title (fr)

PROCÉDÉS POUR RÉDUIRE L'ENRICHISSEMENT INTERFACIAL D'ÉLÉMENTS D'ALLIAGE DANS DES FILMS D'OXYDE ANODIQUE ET AMÉLIORER L'APPARENCE ANODISÉE D'ALLIAGES POUVANT SUBIR UN TRAITEMENT THERMIQUE

Publication

EP 3042983 B1 20240814 (EN)

Application

EP 16150283 A 20160106

Priority

- US 201514593845 A 20150109
- US 2015010736 W 20150109

Abstract (en)

[origin: EP3042983A1] Anodic oxide coatings and methods for forming anodic oxide coatings on metal alloy substrates are disclosed. Methods involve post-anodizing processes that improve the appearance of the anodic oxide coating or increase the strength of the underlying metal alloy substrates. In some embodiments, a diffusion promoting process is used to promote diffusion of one or more types of alloying elements enriched at an interface between the anodic oxide coating and the metal alloy substrate away from the interface. The diffusion promoting process can increase an adhesion strength of the anodic oxide film to the metal alloy substrate and reduce an amount of discoloration due to the enriched alloying elements. In some embodiments, a post-anodizing age hardening process is used to increase the strength of the metal alloy substrate and to improve cosmetics of the anodic oxide coatings.

IPC 8 full level

C25D 11/18 (2006.01); **C25D 11/24** (2006.01); **C25D 11/16** (2006.01)

CPC (source: EP)

C25D 11/18 (2013.01); **C25D 11/246** (2013.01); **C25D 11/16** (2013.01); **C25D 11/243** (2013.01)

Citation (examination)

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EP4116466A3; US11877725B2

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 3042983 A1 20160713; EP 3042983 B1 20240814

DOCDB simple family (application)

EP 16150283 A 20160106