Title (en)

MANUFACTURING METHOD OF AN Al-Li ROLLED PRODUCT FOR AERONAUTICAL APPLICATIONS

Title (de)

HERSTELLUNGSVERFAHREN EINES Al-Li-GEWALZTEN PRODUKTS FÜR ANWENDUNGEN IN DER LUFTFAHRT

Title (fr)

PROCÉDÉ DE FABRICATION D'UN PRODUIT LAMINÉ EN Al-Li POUR DES APPLICATIONS AÉRONAUTIQUES

Publication

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Application

EP 08872581 A 20081219

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- US 2003808 P 20080109

Abstract (en)

[origin: US2009159159A1] The present invention is directed to a substantially unrecrystallized rolled aluminum alloy product, obtained from a plate with a thickness of at least 30 mm, comprising 2.2 to 3.9 wt. % Cu, 0.7 to 2.1 wt. % Li, 0.2 to 0.8 wt. % Mg, 0.2 to 0.5 wt. % Mn, 0.04 to 0.18 wt. % Zr, less than 0.05 wt. % Zn, and optionally 0.1 to 0.5 wt. % Ag, remainder aluminum and unavoidable impurities having a low propensity to crack branching during L-S a fatigue test. A product of the invention has a crack deviation angle Theta of at least 20° under a maximum equivalent stress intensity factor Keff max of 10 MPa √m for a S-L cracked test sample under a mixed mode I and mode II loading wherein the angle Psi between a plane perpendicular to the initial crack direction and the load direction is 75°

IPC 8 full level

C22C 21/12 (2006.01); **C22F 1/057** (2006.01)

CPC (source: EP US)

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