

Title (en)

THICK AL - CU - LI - ALLOY SHEETS HAVING IMPROVED FATIGUE PROPERTIES

Title (de)

DICKE BLECHE AUS AL- CU - LI LEGIERUNG MIT VERBESSERTEN ERMÜDUNGSEIGENSCHAFTEN

Title (fr)

TÔLES ÉPAISSES EN ALLIAGE AL CU LI À PROPRIÉTÉS EN FATIGUE AMÉLIORÉES

Publication

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Application

EP 17707940 A 20170203

Priority

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- FR 2017050255 W 20170203

Abstract (en)

[origin: CA3012956A1] The invention relates to a rolled product having a thickness of at least 50 mm made of aluminium alloy comprising, in % by weight, 2.2% to 3.9% of Cu, 0.7% to 1.8% of Li, 0.1% to 0.8% of Mg, 0.1% to 0.6% of Mn; 0.01% to 0.15% of Ti, at least one element chosen from Zn and Ag, the amount of said element, if it is chosen, being 0.2% to 0.8% for Zn and 0.1% to 0.5% for Ag, optionally at least one element chosen from Zr, Cr, Sc, Hf, and V, the amount of said element, if it is chosen, being 0.04% to 0.18% for Zr, 0.05% to 0.3% for Cr and for Sc, 0.05% to 0.5% for Hf and for V, less than 0.1% of Fe, less than 0.1% of Si, the remainder being aluminium and inevitable impurities, having a content of less than 0.05% each and 0.15% in total; characterized in that its granular structure is predominantly recrystallised between 1/4 and 1/2 thickness. The invention also relates to the process for manufacturing such a product. The products according to the invention are advantageously used in aircraft construction, in particular for the production of an aircraft wing spar or rib.

IPC 8 full level

C22C 21/12 (2006.01)

CPC (source: EP US)

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See references of WO 2017134405A1

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