

Title (en)

ALUMINIUM-COPPER-LITHIUM ALLOY SHEETS FOR PRODUCING AEROPLANE FUSELAGES

Title (de)

BLECHE AUS ALUMINIUM-KUPFER-LITHIUM-LEGIERUNG ZUR HERSTELLUNG VON FLUGZEUGRÜMPFEN

Title (fr)

TÔLES EN ALLIAGE D'ALUMINIUM-CUIVRE-LITHIUM POUR LA FABRICATION DE FUSELAGES D'AVION

Publication

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Application

EP 14719034 A 20140401

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Abstract (en)

[origin: WO2014162068A1] The invention concerns a sheet 0.5 to 8 mm thick made from aluminium alloy comprising 2.6 to 3.0% by weight of Cu, 0.5 to 0.8% by weight of Li, 0.1 to 0.4% by weight of Ag, 0.2 to 0.7% by weight of Mg, 0.06 to 0.20% by weight of Zr, 0.01 to 0.15% by weight of Ti, optionally at least one element chosen from Mn, V, Cr, Se, and Hf, the quantity of the element, if chosen, being 0.01 to 0.8% by weight for Mn, 0.05 to 0.2% by weight for V, 0.05 to 0.3% by weight for Cr, 0.02 to 0.3% by weight for Se, 0.05 to 0.5% by weight for Hf, a quantity of Zn less than 0.2% by weight, a quantity of Fe and Si less than or equal to 0.1% by weight each, and inevitable impurities at a concentration less than or equal to 0.05% by weight each and 0.15% by weight in total, said sheet being obtained by a method comprising casting, homogenising, hot rolling and optionally cold rolling, solution heat treatment, quenching and tempering, the composition and the tempering being combined in such a way that the elasticity limit in the longitudinal direction Rp0.2(L) is between 395 and 435 MPa. The sheet according to the invention is particularly advantageous for producing aircraft fuselage panels.

IPC 8 full level

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Citation (search report)

See references of WO 2014162068A1

Cited by

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