

Title (en)
ALUMINIUM-BASED ALLOY

Title (de)
LEGIERUNG AUF ALUMINIUMBASIS

Title (fr)
ALLIAGE À BASE D'ALUMINIUM

Publication
EP 2006403 A4 20090318 (EN)

Application
EP 07747842 A 20070307

Priority
• RU 2007000109 W 20070307
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Abstract (en)
[origin: EP2006403A1] The invention covers a field of metallurgy of alloys based on aluminum, in particular, to the alloy of aluminum-copper-magnesium-lithium system applied for manufacturing semi-finished products and parts thereof used as structural materials for aerospace engineering. The invention is directed to enhancement of ductility and processibility of aluminum-copper-magnesium-lithium system alloys, increase of yields by manufacturing semi-finished products and parts thereof, assurance of possibility to produce thin sheets, thin-walled sections and die-forgings by reducing production labor intensiveness, by preservation required strength and operation characteristics demanded to structural materials for aerospace engineering. The indicated technical result is achieved by the fact, that the alloy contains the following component ratio, wt %: lithium- 1.6 - 1.9; copper- 1.3 - 1.5; magnesium- 0.7 - 1.1; zirconium- 0.04 - 0.2; beryllium- 0.02 - 0.2; titanium- 0.01 - 0.1; nickel-0.01-0.15; manganese- 0.01 - 0.2; gallium- 0.001; - 0.01 - 0.3; sodium- up to 0.0005; calcium- 0.005 - 0.02; and, at least, one element selected from the group including vanadium- 0.005 - 0.01 and scandium-0.005 - 0.01; aluminum- remainder.

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• No further relevant documents disclosed
• See references of WO 2007111529A1

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