

Title (en)

AlCuMg alloy product for aircraft body member

Title (de)

Produkt aus AlCuMg-Legierung für ein Zellenbauteil eines Flugzeuges

Title (fr)

Produit en alliage AlCuMg pour élément de structure d'avions

Publication

EP 1026270 B1 20050427 (FR)

Application

EP 00420020 A 20000201

Priority

- FR 9901468 A 19990204
- FR 9910682 A 19990818

Abstract (en)

[origin: GB2346381A] Rolled, extruded or forged product made of an AlCuMg alloy processed by solution heat treatment, quenching and cold stretching, to be used in the manufacture of aircraft structural elements, with the following composition (% by weight): <DL TSIZE=11><DT>Fe<0.15<DD>Si<0.15 Cu:3.8-4.4 Mg:1-1.5 <DT>Mn:0.5-0.8<DD>Zr:0.08-0.15 </DL> other elements: < 0.05 each and < 0.15 total with a ratio $R_{\text{SB}} = \frac{m_{\text{SB}}(L)}{R_{\text{SB}}(L)} > 1.25$. The invention is particularly applicable to the manufacture of lower wings, and has a set of properties (toughness, crack propagation rate, fatigue strength, residual stress level), that are better than alloy 2024.

IPC 1-7

C22C 21/16; **C22F 1/057**

IPC 8 full level

C22C 21/16 (2006.01); **C22F 1/057** (2006.01)

CPC (source: EP US)

C22C 21/16 (2013.01 - EP US); **C22F 1/057** (2013.01 - EP US)

Cited by

WO2015044538A1; WO2008003504A2; WO02083962A1; US7666267B2; US7494552B2; US10472707B2; DE112004000603B4; US7604704B2; US7323068B2; US7815758B2

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