

Title (en)

AL-ZN-MG-CU ALLOYS WELDED PRODUCTS WITH HIGH MECHANICAL PROPERTIES, AND AIRCRAFT STRUCTURAL ELEMENTS

Title (de)

KNETPRODUKTE AUS EINER MIT HOHEN MECHANISCHEN EIGENSCHAFTEN AL-ZN-MG-CU-LEGIERUNG UND STRUKTURBAUTEILE FÜR EIN LUFTFAHRZEUG

Title (fr)

PRODUITS CORROYES EN ALLIAGES AL-ZN-MG-CU A TRES HAUTES CARACTERISTIQUES MECANIQUES, ET ELEMENTS DE STRUCTURE D AERONEF

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Application

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Abstract (en)

[origin: WO03085146A1] The invention concerns a rolled, extruded or stamped Al-Zn-Mg-Cu alloy product, characterized in that it contains (in wt. %): a) Zn 8.3 14.0 Cu 0.3 2.0 Mg 0.5 4.5 and preferably 0.5 3.6 Zr 0.03 0.15 Fe + Si < 0.25; b) at least one element selected from the group consisting of Sc, Hf, La, Ti, Ce, Nd, Eu, Gd, Tb, Dy, Ho, Er, Y, Yb, the content of each of said elements, if selected, ranging between 0.02 and 0.7 %; c) the rest being aluminium and unavoidable impurities, and in that it satisfies the following conditions d) Mg / Cu > 2.4 and e) (7.9 0.4 Zn) > (Cu + Mg) > (6.4 0.4 Zn), and preferably, Mg > 1.95 + 0.5 (Cu 2.3) + 0.16 (Zn - 6) + 1.9 (Si 0.04). The inventive products can be used in particular for manufacturing civil aircraft fuselage stiffeners.

IPC 8 full level

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