

Title (en)

AL-MG ALLOY SHEET WITH EXCELLENT FORMABILITY AT HIGH TEMPERATURES AND HIGH SPEEDS AND METHOD OF PRODUCTION OF SAME

Title (de)

BLECH AUS AL-MG-LEGIERUNG MIT HERVORRAGENDER FORMBARKEIT BEI HOHEN TEMPERATUREN UND HOHEN GESCHWINDIGKEITEN UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

FEUILLE D'ALLIAGE AL-MG AYANT UNE EXCELLENTE FORMABILITÉ À DES TEMPÉRATURES ÉLEVÉES ET DES VITESSES ÉLEVÉES ET PROCÉDÉ DE PRODUCTION DE CELLE-CI

Publication

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Application

EP 05734276 A 20050415

Priority

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- JP 2004128040 A 20040423

Abstract (en)

[origin: WO2005103313A1] To provide an aluminum alloy sheet with excellent formability at high temperatures and high speeds with a reduced amount of cavities after forming and a method of production of the same. An aluminum alloy sheet consisting of 2.0-8.0 wt% of Mg, 0.06-0.2 wt % of Si, 0.1-0.5 wt% of Fe, 0.1-0.5 wt% of Mn, and the balance of Al and unavoidable impurities, wherein a density of inter-metallic compounds having an equivalent circle diameter of 1 to 5 (μm is 5000/mm² or more and an average crystal grain size is 20 (μm or less. A method of production of an aluminum alloy sheet comprising the steps of casting an alloy melt having the above described composition by a twin belt casting machine at a cooling rate of 20 to 150°C/sec at the location of 1/4 of the slab thickness during the casting to form a slab having a thickness of 5 to 15 mm, subsequently rewinding up the slab as a coil, cold rolling the slab taken out from the coil at a cold rolling reduction of 70 to 96%, and performing annealing heating the obtained cold rolled sheet at a heating rate of 50°C/sec or more to 420 to 500°C.

IPC 8 full level

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