

Title (en)
METHOD OF MANUFACTURING AN AL-MG-MN ALLOY PLATE PRODUCT

Title (de)
HERSTELLVERFAHREN FÜR EIN WARMGEWALTZTES AL-MG-MN BLECH UND DESSEN VERWENDUNG

Title (fr)
PROCÉDÉ DE FABRICATION D'UNE TÔLE AL-MG-MN LAMINÉE À CHAUD ET SON UTILISATION

Publication
EP 3569721 A1 20191120 (EN)

Application
EP 18173226 A 20180518

Priority
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Abstract (en)
The invention relates to a method of manufacturing a rolled Al-Mg-Mn alloy plate product comprising the steps of: (a) providing a rolling feedstock material of an Al-Mg-Mn alloy having a composition comprising of, in wt.%, Mg 4.8-6.0%, Mn 0.3-1.25%, Zn up to 0.9%, Fe up to 0.4%, Si up to 0.3%, Cu up to 0.2%, Cr up to 0.25%, Zr up to 0.25%, Ti up to 0.25%, unavoidable impurities and balance aluminium; (b) heating the rolling feedstock to a temperature in a range of 480-550 °C; (c) hot-rolling of the heated rolling feedstock to a hot-rolled plate having a final gauge in a range of 3-15 mm, and wherein the hot-mill entry temperature is in a range of 400-550 °C, and the hot-mill exit temperature is in a range of 130-285 °C; and wherein the hot rolling of the rolling feedstock to final gauge is without cold rolling the rolling feedstock prior to the final gauge; (d) annealing of the hot-rolled plate at final gauge at an annealing temperature in a range of 300-550 °C; and (e) cooling to ambient temperature.

IPC 8 full level
C22C 21/06 (2006.01)

CPC (source: EP)
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Citation (search report)
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• [A] CN 105177327 A 20151223 - ALNAN ALUMINIUM INC
• [A] CN 101736183 A 20100616 - NORTHEAST LIGHT ALLOY CO LTD
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• [A] R.F. VISSER ET AL: "The Effect of Hot-Rolling Parameters on Texture Development and Microstructure in Aluminium AA5182", MATERIALS SCIENCE FORUM, vol. 157-162, 1 May 1994 (1994-05-01), pages 1095 - 1102, XP055485450, DOI: 10.4028/www.scientific.net/MSF.157-162.1095

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