

Title (en)
PROCESS OF PRODUCING HEAT-TREATABLE ALUMINUM ALLOY SHEET

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES BLECHES AUS WÄRMEBEHANDLUNGSFÄHIGER ALUMINIUM-LEGIERUNG

Title (fr)
PROCEDE DE PRODUCTION D'UNE FEUILLE EN ALLIAGE D'ALUMINIUM APTE AU TRAITEMENT THERMIQUE

Publication
EP 0990058 B1 20031126 (EN)

Application
EP 98930576 A 19980618

Priority
• CA 9800596 W 19980618
• US 5034197 P 19970620

Abstract (en)
[origin: WO9859086A1] A process of producing aluminum sheet articles made of 6000 or 2000 series aluminum alloy suitable for manufacture into automotive parts. The process comprises direct chill casting the alloy to produce a cast ingot, scalping the cast ingot to form a scalped ingot, homogenizing the scalped ingot at a temperature between 480 and 580 DEG C for less than 48 hours to form an homogenized ingot, hot rolling the homogenized ingot to an intermediate gauge to form an article of intermediate thickness, and cold rolling the article of intermediate thickness to final gauge, wherein the cold rolling reduces the thickness of the intermediate sheet article by an amount in the range of 15 to 40 % to the final gauge. By limiting the amount of reduction brought about by cold rolling, roping effects exhibited in the final product in T4 temper (normally following solutionizing and pre-aging) can be reduced or eliminated. In fact, the cold rolling step can be eliminated entirely, if a suitable reduction of sheet thickness can be achieved by hot rolling alone.

IPC 1-7
C22F 1/05; **C22F 1/057**

IPC 8 full level
C22F 1/00 (2006.01); **C22F 1/05** (2006.01); **C22F 1/057** (2006.01)

CPC (source: EP)
C22F 1/05 (2013.01); **C22F 1/057** (2013.01)

Citation (examination)
• US 5582660 A 19961210 - ERICKSON ROLF B [US], et al
• US 5616189 A 19970401 - JIN ILJOON [CA], et al

Cited by
DE102004030021B4; DE102004030021A1; US11920229B2; US12043887B2; EP3341502B1; EP3555332B1

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