

Title (en)
ALUMINUM ALLOY SHEET STOCK

Publication
EP 0547175 A4 19930908 (EN)

Application
EP 91918743 A 19910905

Priority
• US 57788090 A 19900905
• US 75493091 A 19910904

Abstract (en)
[origin: WO9204476A1] An aluminum sheet is provided. The strip stock is suitable for the fabrication of both container ends and container bodies in thinner gauges than are typically employed, has low earing characteristics and may be derived from recycled aluminum scrap. An alloy particularly suited to the fabrication of the aluminum sheet preferably has a magnesium concentration of from about 1.9 to about 2.8 weight percent and a manganese concentration of from about 0.9 to about 1.6 weight percent. A process particularly suited to the fabrication of the aluminum sheet preferably includes continuous chill block casting the alloy metal into a strip, hot rolling the strip to a first thickness, annealing the hot rolled strip and then cold rolling the annealed strip to a final thickness. Cold rolling preferably includes two stages with an intermediate anneal step between the two stages. The process increases tensile and yield strength while decreasing earing percentage, even in very thin gauges, such as 0.010 inches.

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C22C 21/06; **C22F 1/04**

IPC 8 full level
C22C 21/06 (2006.01); **C22F 1/04** (2006.01); **C22F 1/047** (2006.01)

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C22C 21/06 (2013.01); **C22F 1/047** (2013.01)

Citation (search report)
• [Y] GB 2027621 A 19800227 - ALUSUISSE
• [A] US 4582541 A 19860415 - DEAN ROBERT J [CH], et al
• [A] US 4318755 A 19820309 - JEFFREY PAUL W, et al
• [E] EP 0504077 A1 19920916 - PECHINEY RHENALU [FR]
• [Y] PATENT ABSTRACTS OF JAPAN vol. 5, no. 178 (C-78)14 November 1981 & JP-A-56 102 568 (SUMITOMO LIGHT METAL IND LTD) 17 August 1981
• [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 107 (C-576)14 March 1989 & JP-A-63 282 246 (KOBE STEEL LTD) 18 November 1988
• [A] CHEMICAL ABSTRACTS, vol. 106 Columbus, Ohio, US; abstract no. 124404, FUKADA, KAZUHIRO ET AL. 'Forming of as-rolled high-strength aluminum alloy sheet'
• [E] PATENT ABSTRACTS OF JAPAN vol. 16, no. 566 (C-1009)8 December 1992 & JP-A-04 221036 (SKY ALUM CO LTD) 11 August 1992
• See references of WO 9204476A1

Designated contracting state (EPC)
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