

Title (en)

PROCESS FOR PRODUCING HEAT-TREATABLE SHEET ARTICLES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON WÄRMEBEHANDLUNGSFÄHIGEN BLECH-GEGENSTÄNDEN

Title (fr)

PROCEDE DE PRODUCTION D'ARTICLES EN TOLE TRAITABLES A CHAUD

Publication

EP 1100977 A1 20010523 (EN)

Application

EP 99928955 A 19990707

Priority

- CA 9900618 W 19990707
- US 9205198 P 19980708

Abstract (en)

[origin: WO0003052A1] A process of heat treating a sheet article made of a 6000 series aluminum alloy to achieve good "paint-bake response" that is substantially unaffected by natural aging. The process comprises heating the alloy sheet article at a solutionizing temperature followed by cooling the alloy sheet article. The cooling involves the following steps: (1) cooling from said solutionizing temperature to a temperature in the range of 150 - 250 DEG C at a rate greater than or equal to about 4 DEG C per second; (2) further cooling the alloy to a temperature in the range of ambient to 100 DEG C at a rate of 20 to 30 DEG C (preferably about 25 DEG C) per minute; and (3) further cooling the alloy sheet article having a temperature of 55 DEG C or more after step (2) to ambient temperature at a rate of less than 2 DEG C per hour. Alloy sheet articles suitable for use in the fabrication of automobile skin part can be produced in this way.

IPC 1-7

C22F 1/05; **C22F 1/047**; **C22F 1/043**

IPC 8 full level

C22C 21/02 (2006.01); **C22C 21/06** (2006.01); **C22F 1/00** (2006.01); **C22F 1/043** (2006.01); **C22F 1/047** (2006.01); **C22F 1/05** (2006.01)

CPC (source: EP)

C22F 1/043 (2013.01); **C22F 1/047** (2013.01); **C22F 1/05** (2013.01)

Citation (search report)

See references of WO 0003052A1

Cited by

CN100429330C

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0003052 A1 20000120; AT E279547 T1 20041015; BR 9912522 A 20010502; CA 2336687 A1 20000120; CA 2336687 C 20050104; DE 69921146 D1 20041118; DE 69921146 T2 20051103; EP 1100977 A1 20010523; EP 1100977 B1 20041013; JP 2002520486 A 20020709; NO 20010079 D0 20010105; NO 20010079 L 20010307

DOCDB simple family (application)

CA 9900618 W 19990707; AT 99928955 T 19990707; BR 9912522 A 19990707; CA 2336687 A 19990707; DE 69921146 T 19990707; EP 99928955 A 19990707; JP 2000559267 A 19990707; NO 20010079 A 20010105