Title (en)

Alloy sheet for shadow mask and method for manufacturing thereof

Title (de)

Legierung für Schattenmaske und Verfahren zu dessen Herstellung

Title (fr)

Alliage pour masque d'ombre et sa méthode de fabrication

Publication

EP 0739992 A1 19961030 (EN)

Application

EP 96101338 A 19931215

Priority

- EP 93120232 A 19931215
- JP 15288593 A 19930531
- JP 18493893 A 19930727

Abstract (en)

An alloy sheet for making a shadow mask consisting essentially of 34 to 38 wt.% Ni, 0.1 wt.% or less Si, 0.003 wt.% or less B, 0.003 wt.% or less O, less than 0.002 wt.% N, 0.05 to 3 wt.% Cr and the balance being Fe and inevitable impurities; said alloy sheet after annealing before press-forming having 0.2% proof stress of 27.5 kgf/mm<2> or less; and a gathering degree of ä211ü plane on a surface of said alloy sheet being 16% or less. A method for manufacturing an alloy sheet for shadow mask comprising the steps of: (a) preparing a hot-rolled sheet containing Fe, Ni and Cr; (b) annealing said hot-rolled sheet in a temperature range of 910 to 990 DEG C; (c) cold-rolling said annealed hot-rolled sheet to produce a cold-rolled sheet: (d) a final recrystallization annealing step of annealing said cold-rolled sheet subjected to the cold-rolling; (e) a finish cold-rolling step of cold-rolling the cold-rolled sheet subjected to the final recrystallization annealing at the cold-rolling reduction ratio in response to an average austenite grain size D (mu m) yieleded by the final recrystallization annealing, the cold-rolling reduction ratio R (%) satisfying the equations below; <MATH> <MATH> <MATH> (f) a stress relief annealing step of annealing the cold-rolled sheet subjected to the finish cold rolling; (g) a softening annealing step of annealing said cold-rolled sheet subjected to the finish cold-rolling in a temperature range of 700 to less than 800 DEG C for 0.5 to less than 60 min. before press-forming and on conditions satisfying the equation below; <MATH> where T(DEG C) is the temperature and t (min.) is the time of the annealing.

IPC 1-7

C22C 38/08; C21D 8/02

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 092 (C - 0811) 6 March 1991 (1991-03-06)
- [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 296 (C - 377) 8 October 1986 (1986-10-08)

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EP 0627494 A1 19941207; **EP 0627494 B1 19970723**; CN 1037984 C 19980408; CN 1100758 A 19950329; DE 69312477 D1 19970828; DE 69312477 T2 19980102; DE 69319153 D1 19980716; DE 69319153 T2 19981112; EP 0739992 A1 19961030; EP 0739992 B1 19980610; KR 970003640 B1 19970320

DOCDB simple family (application)

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