

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 0627494 A1 19941207 (EN)

Application

EP 93120232 A 19931215

Priority

- JP 15288593 A 19930531
- JP 18493893 A 19930727

Abstract (en)

An alloy sheet for making a shadow mask consists essentially of 34 to 38 wt.% Ni, 0.07 wt.% or less Si, 0.002 wt.% or less B, 0.002 wt.% or less O, less than 0.002 wt.% N and the balance being Fe and inevitable impurities; said alloy sheet after annealing before press-forming having 0.2 % proof stress of 28 kgf/mm² or less; and a gathering degree of {211} plane being 16 % or less. A method for manufacturing an alloy sheet comprises: a finish cold-rolling step of cold-rolling the cold-rolled sheet at a cold-rolling reduction ratio in response to an average austenite grain size D (μm), the reduction ratio of final cold-rolling R (%) satisfying the equations below: 16 <= R <= 75, 6.38D-133.9 <= R <= 6.38D-51.0 a softening annealing step of annealing said cold rolled sheet in a temperature range of 720 to 790 DEG C for 2 to 40 min. before press-forming and on conditions satisfying the equation below; T >= -53.8 log t + 806, where T (DEG C) is the temperature and t (min.) is the time of the annealing. <IMAGE>

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [XP] EP 0561120 A1 19930922 - NIPPON KOKAN KK [JP]
- [AP] EP 0552800 A1 19930728 - NIPPON KOKAN KK [JP]
- [A] DE 3636815 A1 19870514 - NIPPON MINING CO [JP]
- [A] DE 3642205 A1 19880107 - NIPPON MINING CO [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 296 (C - 377) 8 October 1986 (1986-10-08)
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 296 (C - 377) 8 October 1986 (1986-10-08)
- [A] PATENT ABSTRACTS OF JAPAN vol. 15, no. 92 (C - 0811) 6 March 1991 (1991-03-06)
- [A] PATENT ABSTRACTS OF JAPAN vol. 15, no. 461 (C - 0887) 22 November 1991 (1991-11-22)
- [A] PATENT ABSTRACTS OF JAPAN vol. 15, no. 461 (C - 0887) 22 November 1991 (1991-11-22)
- [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 69 (C - 569) 16 February 1989 (1989-02-16)

Cited by

EP1176221A3; EP0713923A1; FR2727131A1; DE10041453A1; FR2800753A1; DE10041453B4; EP0719873A1; FR2728724A1; US5643697A; CN1050639C

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