

Title (en)

High tensile strength cold-rolled steel sheet having a high r-value, excellent strain age hardenability and natural aging resistance and method of producing the same

Title (de)

Hochfestes Kaltgewalztes Stahlblech mit hoch r-Wert, exzellenter Reckalterungseigenschaften und Alterungsbeständigkeit sowie Verfahren zur dessen Herstellung

Title (fr)

Tôle d'acier à haute résistance laminée à froid ayant une haute r-valeur, excellente aptitude au durcissement au vieillissement par écrouissage et son procédé de fabrication

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Application

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Abstract (en)

An object of the present invention is to provide a cold-rolled steel sheet and an alloyed hot-dip galvanized steel sheet in which tensile strength is effectively increased by press forming and heat treatment while maintaining excellent deep drawability in press forming. Specifically, a steel composition contains less than 0.01% of C, 0.005 to 1.0% of Si, 0.01 to 1.0% of Mn, 0.005 to 0.050% of Nb, 0.005 to 0.030% of Al, 0.005 to 0.040% of N, 0.0005 to 0.0015% of B, 0.05% or less of P, and 0.01% or less of S, the balance substantially composed of Fe, in which the following equations (1) and (2) are satisfied: $N\% \geq 0.0015 + 14/93 \cdot Nb\% + 14/27 \cdot Al\% + 14/11 \cdot B\%$ $C\% \leq (12/93) \cdot Nb\%$ <IMAGE>

IPC 1-7

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Citation (search report)

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- [AD] PATENT ABSTRACTS OF JAPAN vol. 009, no. 184 (C - 294) 30 July 1985 (1985-07-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 009, no. 306 (C - 317) 3 December 1985 (1985-12-03)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 07 31 August 1995 (1995-08-31)

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