

## Title (en)

Cold-rolled steel sheet and galvanized steel sheet having excellent strain age hardenability and method of producing the same

## Title (de)

Kaltgewalztes Stahlblech und Zinkblech mit Reckalterungseigenschaften und Verfahren zur dessen Herstellung

## Title (fr)

Toile d'acier laminee a froid, galvanisee ayant excellent aptitude au durcissement au vieillissement par ecrouissage et son procede de fabrication

## Publication

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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:  $\text{N} \geq 0.0015 + 14/93 \cdot \text{Nb} + 14/27 \cdot \text{Al} + 14/11 \cdot \text{B}$  and  $\text{C} \leq (12/93) \cdot \text{Nb}$ .

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