

Title (en)

STEEL SHEET FOR DEEP DRAWING HAVING EXCELLENT SECONDARY WORK EMBRITTLEMENT RESISTANCE, FATIGUE PROPERTIES AND PLATING PROPERTIES, AND METHOD FOR MANUFACTURING THE SAME

Title (de)

STAHLBLECH ZUM TIEFZIEHEN MIT HERVORRAGENDER BESTÄNDIGKEIT GEGEN VERFORMUNGSINDUZIERTES VERSPRÖDUNG, HERVORRAGENDEN ERMÜDUNGSEIGENSCHAFTEN UND HERVORRAGENDEN PLATTIERUNGSEIGENSCHAFTEN UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

TÔLE D'ACIER POUR EMBOUTISSAGE PROFOND PRÉSENTANT UNE EXCELLENTE RÉSISTANCE À LA FRAGILISATION PAR LE RÉUSINAGE ET D'EXCELLENTES PROPRIÉTÉS EN MATIÈRE DE FATIGUE ET DE PLACAGE, ET SON PROCÉDÉ DE FABRICATION

Publication

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Application

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Abstract (en)

[origin: WO2007007983A1] A steel sheet for deep drawing used for automobiles, and a method for manufacturing the same are disclosed. The steel sheet comprises, by weight%, C: 0.010% or less, Si: 0.02% or less, Mn: 0.06 ~ 1.5%, P: 0.15% or less, S: 0.020% or less, Sol. Al: 0.10 ~ 0.40%, N: 0.010% or less, Ti: 0.003 ~ 0.010%, Nb: 0.003 ~ 0.040%, B: 0.0002 ~ 0.0020%, and the balance of Fe and other unavoidable impurities, wherein the composition of Ti, Al, B, and N satisfies the relationship:  $1.0 < (Ti[\%] + Al[\%]/16 + 6B[\%])/3.43N[\%] < 4.1$ , and wherein the composition of Nb, Al, and C satisfies the relationship:  $0.7 < (Nb[\%] + Al[\%]/20)/7.75C[\%] < 3.5$ . The steel sheet exhibits excellent secondary work embrittlement, fatigue properties of welded joints, and an appealing plated surface as well as excellent formability.

IPC 8 full level

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