

Title (en)

COLD ROLLED STEEL SHEET AND HOT DIPPED STEEL SHEET WITH SUPERIOR STRENGTH AND BAKE HARDENABILITY AND METHOD FOR MANUFACTURING THE STEEL SHEETS

Title (de)

KALTGEWALZTES STAHLBLECH UND FEUERVEREDELTES STAHLBLECH MIT HOHER FESTIGKEIT UND WARMHÄRTBARKEIT UND VERFAHREN ZU HERSTELLUNG DER STAHLBLECHE

Title (fr)

FEUILLE D'ACIER LAMINEE A FROID ET FEUILLE D'ACIER TRAITEE A CHAUD PRESENTANT UNE RESISTANCE ET UN DURCISSEMENT A LA CUISSON SUPERIEURS ET PROCEDE DE FABRICATION DE CES FEUILLES D'ACIER

Publication

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Application

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Abstract (en)

[origin: WO2006001583A1] Disclosed herein are a bake-hardenable high-strength cold-rolled steel sheet, a hot-dipped steel sheet thereof, and a method for manufacturing the same. The steel sheet comprises 0.0016 ~ 0.01 % of C; 0.1 % or less of Si; 0.2 ~ 1.5 % of Mn; 0.05 ~ 0.15 % of P; 0.01 % or less of S; 0.08 ~ 0.5 % of (soluble) Al; 0.0025 % or less of N; 0.003 ~ 0.1 % of Nb; 0.003 % or less of Ti; 0.01 ~ 0.4 % of Mo; 0.0005 ~ 0.005 % of B; and the balance of Fe and other unavoidable impurities, in terms of weight%. The steel sheet has fine AlN precipitates, and a grain size (ASTM No.) of 9 or more. The AlN precipitates have a grain size, which can suppress grain growth. The steel sheet has enhanced strength, bake hardenability, aging resistance, and secondary work embrittlement resistance.

IPC 8 full level

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