

Title (en)
HIGH STRENGTH COLD ROLLED STEEL PLATE HAVING EXCELLENT YIELD STRENGTH, DUCTILITY, AND HOLE EXPANDABILITY, HOT DIP GALVANIZED STEEL PLATE, AND METHOD FOR PRODUCING SAME

Title (de)
HOCHFESTES KALTGEWALZTES STAHLBLECH MIT HERVORRAGENDER STRECKGRENZE, DUKTILITÄT UND LOCHDEHNBARKEIT, FEUERVERZINKTES STAHLBLECH UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
TÔLE D'ACIER LAMINÉE À FROID À HAUTE RÉSISTANCE PRÉSENTANT UNE EXCELLENTE LIMITE D'ÉLASTICITÉ, UNE EXCELLENTE DUCTILITÉ ET UNE EXCELLENTE CAPACITÉ D'EXPANSION DE TROU, TÔLE D'ACIER GALVANISÉE PAR IMMERSION À CHAUD ET PROCÉDÉ DE PRODUCTION ASSOCIÉ

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Abstract (en)
[origin: EP3556896A1] Provided are a high strength cold rolled steel sheet having excellent yield strength, ductility, and hole expandability, a hot dip galvanized steel sheet, and a method for producing same. The cold rolled steel sheet of the present invention comprises 0.06-0.2 wt% of carbon (C), 1.5-3.0 wt% of manganese (Mn), 0.3-2.5 wt% of silicon (Si), 0.01-0.2 wt% of aluminum (Al), 0.01-3.0 wt% of nickel (Ni), 0.2 wt% or less of molybdenum (Mo), 0.01-0.05 wt% of titanium (Ti), 0.02-0.05 wt% of antimony (Sb), 0.0005-0.003 wt% of boron (B), 0.01 wt% or less (but not 0%) of nitrogen (N), with the remainder comprising Fe and unavoidable impurities, and the microstructure thereof comprises, in terms of area fraction, 50% or more of bainite, 10% or more of tempered martensite (TM), 10% or less of fresh martensite (FM), 20% or less of residual austenite, and 5% or less of ferrite.

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