

Title (en)

HIGH STRENGTH STEEL PLATE HAVING EXCELLENT LOW YIELD RATIO CHARACTERISTICS AND LOW TEMPERATURE TOUGHNESS AND METHOD FOR MANUFACTURING SAME

Title (de)

HOCHFESTE STAHLPLATTE MIT HERVORRAGENDEM NIEDRIGEM STRECKGRENZENVERHÄLTNIS UND KÄLTEZÄHIGKEIT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

PLAQUE D'ACIER À HAUTE RÉSISTANCE PRÉSENTANT D'EXCELLENTE CARACTÉRISTIQUES DE FAIBLE COEFFICIENT D'ÉLASTICITÉ ET UNE TÉNACITÉ À BASSE TEMPÉRATURE ET SON PROCÉDÉ DE FABRICATION

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Application

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Abstract (en)

One aspect of the present invention relates to a high strength steel plate having excellent low yield ratio characteristics and low temperature toughness, comprising, by weight %: C: 0.03 to 0.08%; Si: 0.05 to 0.3%; Mn: 1.0 to 2.0%; Al: 0.005 to 0.04%; Nb: 0.005 to 0.04%; Ti: 0.001 to 0.02%; Cu: 0.05 to 0.4%; Ni: 0.6 to 2.0%; Mo: 0.08 to 0.3%; N: 0.002 to 0.006%; P: 0.01% or less; S: 0.003% or less; and the remainder being Fe and unavoidable impurities, in which a microstructure contains, by area fraction, 80 to 92% of ferrite, 8 to 20% of a martensite/austenite mixed structure (MA), wherein the MA has an average size measured as a circle-equivalent diameter of 3 μ m or less.

IPC 8 full level

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