

Title (en)
HIGH-STRENGTH STEEL SHEET HAVING EXCELLENT HOLE EXPANDABILITY AND DUCTILITY AND MANUFACTURING METHOD THEREFOR

Title (de)
HOCHFESTES STAHLBLECH MIT HERVORRAGENDER LOCHDEHNBARKEIT UND DUKTILITÄT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
FEUILLE D'ACIER À HAUTE RÉSISTANCE DOTÉE D'EXCELLENTE CAPACITÉ D'EXPANSION DE TROU ET DUCTILITÉ ET PROCÉDÉ DE FABRICATION ASSOCIÉ

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Abstract (en)
The present invention relates to steel suitable as a material for automobiles and, specifically, to a high-strength steel sheet having excellent hole expandability and ductility, and a manufacturing method therefor. The high-strength steel sheet of the present invention has a microstructure comprising a hard phase and a soft phase, wherein a martensite phase, which is the hard phase, is evenly distributed in a recrystallized ferrite matrix through optimized cold-rolling and annealing processes, and a nonequilibrium ferrite phase is introduced at the interface between the hard phase and the soft phase so as to increase the crack resistance during processing.

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