

Title (en)
HIGH STRENGTH ZN-COATED STEEL SHEET HAVING EXCELLENT MECHANICAL PROPERTIES AND SURFACE QUALITY AND THE METHOD FOR MANUFACTURING THE SAME

Title (de)
HOCHFESTES ZN-BESCHICHTETES STAHLBLECH MIT HERVORRAGENDEN MECHANISCHEN EIGENSCHAFTEN UND HERVORRAGENDER OBERFLÄCHENQUALITÄT SOWIE HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
FEUILLE D'ACIER À REVÊTEMENT ZN POSSÉDANT D'EXCELLENTE PROPRIÉTÉS MÉCANIQUES ET QUALITÉ DE SURFACE ET SON PROCÉDÉ DE FABRICATION

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Application
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Abstract (en)
[origin: WO2008082146A1] There is provided a high strength Zn-coated steel sheet having excellent mechanical properties and surface quality, which is mainly used for inner and outer panels and structural parts of a vehicle. The steel sheet having excellent mechanical properties and surface quality includes, by weight: 0.01 to 0.2% C, 0.01 to 1.5% Si, 0.2 to 4.0% Mn, 0.001 to 0.1% P, ≤0.03% S, 0.01 to 1.5% Al, 0.001 to 0.03% N, 0.0002 to 0.005% B, 0.01 to 2.0% Cr, 0.005 to 0.5% Mo, 0.005 to 0.1% Sb, and the balance of Fe and unavoidable impurities, the steel sheet satisfying a relation of $5 \leq (7\text{Mn} + 4\text{Si} + 2\text{Al} + 18\text{B}) / (4\text{C} + 3\text{P} + 20\text{Sb}) \leq 18$ and having an oxide layer with a thickness of 1 μm or less on a surface thereof. According to the present invention, a high-strength dual phase steel having excellent mechanical properties and surface quality can be manufactured.

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