

Title (en)

COLD ROLLED AND COATED STEEL SHEET AND A METHOD OF MANUFACTURING THEREOF

Title (de)

KALTGEWALZTES UND BESCHICHTETES STAHLBLECH UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

TÔLE D'ACIER LAMINÉE À FROID ET REVÊTUE ET SON PROCÉDÉ DE FABRICATION

Publication

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Application

**EP 19772880 A 20190917**

Priority

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- IB 2019057795 W 20190917

Abstract (en)

[origin: WO2020058748A1] A cold rolled and heat treated steel sheet having a composition comprising of the following elements 0.13 % ≤ Carbon ≤ 0.18 %, 1.1 % ≤ Manganese ≤ 1.8%, 0.5 % ≤ Silicon ≤ 0.9 %, 0.6 % ≤ Aluminum ≤ 1%, 0.002 % ≤ Phosphorus ≤ 0.02 %, 0 % ≤ Sulfur ≤ 0.003 %, 0 % ≤ Nitrogen ≤ 0.007% and can contain one or more of the following optional elements 0.05% ≤ Chromium ≤ 1 %, 0.001% ≤ Molybdenum ≤ 0.5%, 0.001% ≤ Niobium ≤ 0.1%, 0.001% ≤ Titanium ≤ 0.1%, 0.01% ≤ Copper ≤ 2%, 0.01% ≤ Nickel ≤ 3%, 0.0001% ≤ Calcium ≤ 0.005%, 0 % ≤ Vanadium ≤ 0.1%, 0 % ≤ Boron ≤ 0.003%, 0 % ≤ Cerium ≤ 0.1%, 0 % ≤ Magnesium # 0.010%, 0 % ≤ Zirconium # 0.010%, the remainder composition being composed of iron and unavoidable impurities caused by processing, the microstructure of said steel sheet comprising in area fraction, 60 to 75% Ferrite, 20 to 30% Bainite, 10 to 15% Residual Austenite, and 0% to 5% Martensite, wherein the cumulated amounts of Residual Austenite and Ferrite is between 70% and 80%.

IPC 8 full level

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