

Title (en)
FLAT STEEL PRODUCT, METHOD FOR PRODUCING SAME, AND USE OF SUCH A FLAT STEEL PRODUCT

Title (de)
STAHLFLACHPRODUKT, VERFAHREN ZU SEINER HERSTELLUNG UND VERWENDUNG EINES SOLCHEN STAHLFLACHPRODUKTS

Title (fr)
PRODUIT PLAT EN ACIER, SON PROCÉDÉ DE PRODUCTION, ET UTILISATION D'UN TEL PRODUIT PLAT EN ACIER

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Application
EP 22710062 A 20220303

Priority
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Abstract (en)
[origin: WO2022184811A1] The invention relates to a cold-rolled flat steel product, wherein the steel substrate thereof has a tensile strength of 750-940 MPa, a high strength, an improved weldability and optimized shaping properties and, at the same time, can be produced at low cost. A cold-rolled flat steel product according to the invention consists of a steel which is composed, in percent by mass, of C: 0.040 - 0.100%; Mn: 2.10 - 2.50%; Si: 0.10 - 0.40%; Cr: 0.30 - 0.90%; Ti: 0.020 - 0.080%; B: 0.0005 - 0.0020%; N: 0.003 - 0.010%; Al: up to 0.10 %; Ca: up to 0.005%; P: up to 0.025%; S: up to 0.010%; optionally one or more of the following elements: Mo: up to 0.20%; Nb: up to 0.050%; Cu: up to 0.10%; V: up to 0.020%; Ni: up to 0.10%, the remainder being iron and unavoidable impurities, wherein the total content of impurities is limited to at most 0.5% by mass and wherein the contents of phosphorus ("P") and sulfur ("S") belong to the impurities. In addition, the steel substrate has a dual-phase structure which consists of 10 - 40% by volume of martensite, 30 - 90% by volume of ferrite including bainitic ferrite, not more than 5% of residual austenite, the remainder being production-related unavoidable other structural constituents.

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