

Title (en)
FLAT STEEL PRODUCT AND PRODUCTION METHOD THEREOF

Title (de)
STAHLFLACHPRODUKT UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
PRODUIT D'ACIER PLAT ET SON PROCÉDÉ DE FABRICATION

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Abstract (en)
[origin: WO2019063081A1] The invention relates to a bake hardening treatment of a suitable very high-strength flat steel product and to a method for producing such a flat steel product. The flat steel product consists of a steel that consists of (in wt%) 0.1-0.5% C, 1.0-3.0% Mn, 0.5-2.0% Si, 0.01-1.5% Al, 0.001-0.008% N, up to 0.02% P, up to 0.005% S and optionally one or more of the following elements: 0.01-1.0% Cr, 0.01-0.2% Mo, 0.001-0.01% B, and optionally a total of 0.005-0.2% V, Ti and Nb, the Ti proportion not being more than 0.10%, and, as the remainder, iron and unavoidable impurities. The flat steel product has a microstructure that consists of not more than 15 area % ferrite, not more than 5 area % bainite, at least 5 volume % residual austenite and at least 80 area % martensite, of which at least 75 area % is tempered martensite.

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