

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

Title (de)  
VERFAHREN ZUM HERSTELLEN EINES STAHLFLACHPRODUKTS, STAHLFLACHPRODUKT UND VERWENDUNG EINES SOLCHEN STAHLFLACHPRODUKTS

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

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Application  
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Priority  
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Abstract (en)  
[origin: WO2021254610A1] According to the invention, to produce sheet steel products which are suitable for forming into sheet metal parts and can be welded well, a) a steel melt is melted, which consists of, in wt%, C: 0.10-0.4, Si: 0.05-0.5, Mn: 0.5-3.0, Al: 0.01-0.2, Cr: 0.005-1.0, V: 0.001-0.2, and optionally one or more elements from the group "B, Ti, Nb, Ni, Cu, Mo, W" in the following amounts, B: 0.0005-0.01, Ti: 0.001-0.1, Nb: 0.001-0.1, Ni: 0.01-0.4, Cu: 0.01-0.8, Mo: 0.002-1.0, W: 0.001-1.0, the remainder Fe and unavoidable impurities. The melt is b) poured into a tundish, out of which the melt flows into a continuous casting mould to form a strand, wherein, when poured into the tundish, the melt has a superheat temperature TUE which is 5-60 °C higher than the liquidus temperature thereof, and the following applies for the product a) formed from a thickness Ds of the strand and a pouring speed Vs at which the melt flows into the continuous casting mould:  $a_{min} < a < a_{max}$  (where  $a_{min} = 0.05 \text{ m}^2/\text{min}$ ,  $a_{max} = 0.7 \text{ m}^2/\text{min}$ ,  $D_s = 20\text{-}500 \text{ mm}$ ). c) A slab or thin slab is separated off from the strand and is then d) heated through at a temperature of 1100-1400 °C. The heated slab or thin slab is hot-rolled to form a sheet steel product at a final rolling temperature of 750-1000 °C. Following any optional reeling, descaling and cold-rolling, the sheet steel product is annealed at an annealing temperature of 650-900 °C. It is then cooled to room temperature, the cooling taking place from 600 °C to 450 °C at an average cooling rate (CR1)  $\leq 25 \text{ K/s}$  and from 400 °C to 220 °C at an average cooling rate (CR2)  $\leq 20 \text{ K/s}$ . The invention also relates to a sheet steel product having an optimal property profile for forming.

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