

Title (en)

HIGH-STRENGTH STEEL STRIP OR SHEET EXHIBITING TWIP PROPERTIES AND METHOD FOR PRODUCING SAID STRIP BY DIRECT STRIP CASTING "

Title (de)

HÖHERFESTES, TWIP-EIGENSCHAFTEN AUFWEISENDES STAHLBAND ODER -BLECH UND VERFAHREN ZU DESSEN HERSTELLUNG MITTELS "DIRECT STRIP CASTING "

Title (fr)

BANDE OU TOLE D'ACIER EXTREMEMENT RESISTANTE A PROPRIETES TWIP ET PROCEDE DE FABRICATION DE LADITE BANDE A L'AIDE DE LA "COULEE DIRECTE DE BANDES"

Publication

**EP 1807542 A1 20070718 (DE)**

Application

**EP 04797547 A 20041103**

Priority

EP 2004012407 W 20041103

Abstract (en)

[origin: WO2006048034A1] The inventive method for producing cold-formable high-strength steel strips or sheets exhibiting TWIP properties consists of successive working steps carried out without interruption, wherein a molten material has the following composition (in mass %): 0.003 1.50 mass % C, 1.00 30. 00 mass % Mn, = 10.00 mass % Ni, = 8.00 mass % Si, = 10.00 mass % Al, = 10.00 mass % Cr, = 0.60 mass % N, = 3.00 mass % Cu, = 0.40 mass % P and = 0.15 mass % S, selectively one or several elements of a Se, Te, V, Ti, Nb, B, REM, Mo, W, Co, Ca and Mg group, provided that a total content in Se and Te is = 0.25 %, a total content in an V, Ti, Nb, B, REM is = 4.00 %, a total content in Mo, W, Co is = 1.50 % and a total content in Ca and Mg is = 0.50 %, the rest being iron and steel production impurities, wherein the content in Sn, Sb, Zr, Ta and As whose total content is equal to or less than 0.30 mass % is included in said impurities. Said composition is applied to a conveyor belt and is cooled thereon until it is solidified into a pre-strip, said pre-strip is removed from the conveyor belt, the removed pre-strip is exposed to heat treatment and is heat-rolled at a hot-rolling temperature of 700 °C, thereby making it possible to obtain a hot-rolled strip whose structure is completely recrystallised and which is wound at a winding temperature up to of 750 °C.

IPC 8 full level

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Citation (search report)

See references of WO 2006048034A1

Citation (examination)

JP H04259325 A 19920914 - SUMITOMO METAL IND & DATABASE WPI Week 199243, Derwent World Patents Index; Class M21, AN 1992-355135

Cited by

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