

Title (en)

Process of manufacturing thin "TRIP" type steel strips and strips obtained thereby

Title (de)

Verfahren zum Herstellen von dünnen "TRIP"-Typ-Stahlbändern und also hergestellte Stahlbänder

Title (fr)

Procédé de fabrication de bandes minces en acier de type "TRIP" , et bandes minces ainsi obtenues

Publication

EP 1072689 B1 20040407 (FR)

Application

EP 00402035 A 20000717

Priority

FR 9910060 A 19990730

Abstract (en)

[origin: EP1072689A1] To make the TRIP (TRansformation Induced Plasticity) band, the band is continuously cast, 1.5-10 mm thick, preferably 1-5 mm thick. Composition is C 0.5-0.25, (Mn+Cu+Ni) is 0.5-3%, (Si+Al) is 0.1-4%, (P+Sn+As+Sb) is up to 0.1%, (Ti+Nb+V+Zr+rare earths) is up to 0.3%, Cr is below 1%, as are Mo, V; the balance being iron and impurities. The band is hot-laminated above the steel Ar3 temperature, with a reduction of 25-70% in one or more passes. The first forced cooling takes place at 5-100 degrees C/s. The band is held at 550-400 degrees C sufficiently long for the bainitic transformation with a proportion of residual austenite exceeding 5%, whilst avoiding perlite formation. The transformation is interrupted by a second forced cooling to 400 degrees C. The band is finally wound up, below 350 degrees C. An Independent claim is included for the band of steel so produced.

IPC 1-7

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