

Title (en)

Multiphase steel, manufacturing of rolled products, and its use

Title (de)

Mehrphasiger Stahl, Erzeugung von Walzprodukten und Verwendung des Stahls

Title (fr)

Acier à plusieurs phases, fabrication de produits laminés, et son utilisation

Publication

**EP 0748874 A1 19961218 (DE)**

Application

**EP 96107885 A 19960517**

Priority

- DE 19521836 A 19950616
- DE 19605697 A 19960216

Abstract (en)

A novel multiphase steel has the compsn. (by wt.) 0.12-0.3% C, 1.2-3.5% Mn, 1.1-2.2% Al, less than 0.2% Si, balance Fe and impurities (including P and S) and has a pearlitic structure consisting of up to 70 vol.% soft polygonal ferrite and balance bainitic ferrite and more than 4 (pref. up to 20) vol.% carbon-enriched residual austenite, opt. with smaller amounts of carbon-enriched martensite. The Al content is less than  $7.6 \times Ce$ , where Ce (carbon equivalent) =  $\%C + 1$  divided by  $20 \times \%Mn + 1$  divided by  $20 \times \%Cr + 1$  divided by  $15 \times \%Mo = 0.2$  to 0.325. Also claimed is the prodn. of rolled products of the above steel.

Abstract (de)

Die Erfindung betrifft einen Dualphasenstahl mit überwiegend ferritischem Gefüge, in dem eine kohlenstoffreiche perlittfreie harte zweite Phase eingelagert ist, die überwiegend aus Martensit besteht, mit hoher Festigkeit und guter Umformbarkeit sowie verbesserter Oberflächenqualität nach einer Warmverformung sowie ein Verfahren zu seiner Herstellung.

IPC 1-7

**C21D 8/02**; **C22C 38/06**

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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- [X] PATENT ABSTRACTS OF JAPAN vol. 018, no. 668 (C - 1289) 16 December 1994 (1994-12-16)
- [X] PATENT ABSTRACTS OF JAPAN vol. 017, no. 373 (C - 1083) 14 July 1993 (1993-07-14)

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DOCDB simple family (application)

**EP 96107885 A 19960517**; AR 10318296 A 19960614; BR 9608969 A 19960601; CA 2224813 A 19960601; CN 96195602 A 19960601; CZ 402697 A 19960601; EP 9602382 W 19960601; HU P9801755 A 19960601; MX 9710229 A 19960601; PL 32455696 A 19960601; TR 9701721 T 19960601