

## Title (en)

Hot rolled dual-phase steel strip having features of a cold rolled strip

## Title (de)

Warmgewalztes Band aus Dualphasenstahl mit den Eigenschaften eines kaltgewalzten Bandes

## Title (fr)

Tôle d'acier dual phase laminée à chaud présentant les caractéristiques d'une tôle laminée à froid

## Publication

**EP 1662011 A1 20060531 (EN)**

## Application

**EP 04425878 A 20041124**

## Priority

EP 04425878 A 20041124

## Abstract (en)

A hot rolled dual phase steel strip with thickness #¥ 1.0 mm can be used for producing cold pressed and cut pieces, in particular for the car manufacturing industry, by replacing with the same mechanical performances the cold rolled dual phase steel strip usually employed for these purposes. Said hot rolled strip in peritectic steel has a carbon percentage between 0.06 and 0.15 % with chemical analysis without any important addition of chromium and phosphorous, with a constant geometrical profile on the whole length and tolerances, particularly with respect to the thickness, which are typical of a cold rolled strip with parallelism < 0.05 mm, crown between strips centre and side edges < 0.07 mm, while showing a structure with a microcrystalline fineness better than grade 10 of the ASTM 112 standard in a percentage higher than 80% of the whole structure.

## IPC 8 full level

**C21D 8/02** (2006.01)

## CPC (source: EP)

**C21D 1/185** (2013.01); **C21D 8/0215** (2013.01); **C21D 8/0226** (2013.01); **C21D 8/0426** (2013.01); **C22C 38/04** (2013.01); **C21D 2211/002** (2013.01); **C21D 2211/005** (2013.01); **C21D 2211/008** (2013.01)

## Citation (applicant)

- EP 0019193 A1 19801126 - SSAB SVENSKT STAL AB [SE]
- EP 0072867 A1 19830302 - KAWASAKI STEEL CO [JP]
- US 4790889 A 19881213 - MAID OLAF [DE], et al
- US 4561910 A 19851231 - KATO TOSHIYUKI [JP], et al
- EP 0415987 A1 19910313 - MANNESMANN AG [DE], et al

## Citation (search report)

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- [A] US 5832985 A 19981110 - PLESCHIUTSCHNIGG FRITZ-PETER [DE], et al
- [AD] WO 8911363 A1 19891130 - MANNESMANN AG [DE], et al
- [Y] PATENT ABSTRACTS OF JAPAN vol. 016, no. 584 (C - 1013) 24 December 1992 (1992-12-24)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1997, no. 07 31 July 1997 (1997-07-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 05 14 September 2000 (2000-09-14)
- [A] "Properties and Selection: Irons, steels and high performance alloys", ASM METALS HANDBOOK, 1990, OHIO, USA, pages 424 - 429, XP002326811

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ITMI20120066A1; AT525283A4; AT525283B1

## Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR

## Designated extension state (EPC)

HR YU

## DOCDB simple family (publication)

**EP 1662011 A1 20060531**; **EP 1662011 B1 20081231**; AT E419399 T1 20090115; DE 602004018791 D1 20090212; DK 1662011 T3 20090406; ES 2316950 T3 20090416; HR P20090024 T3 20090228; PL 1662011 T3 20090630; PT 1662011 E 20090203; SI 1662011 T1 20090430

## DOCDB simple family (application)

**EP 04425878 A 20041124**; AT 04425878 T 20041124; DE 602004018791 T 20041124; DK 04425878 T 20041124; ES 04425878 T 20041124; HR P20090024 T 20090116; PL 04425878 T 20041124; PT 04425878 T 20041124; SI 200430998 T 20041124