

Title (en)

Method for thermal treatment of a coated steel sheet body

Title (de)

Verfahren zur thermischen Behandlung eines beschichteten Stahlblechkörpers

Title (fr)

Procédé destiné au traitement thermique d'un corps en tôle d'acier revêtu

Publication

EP 2182081 B1 20140122 (DE)

Application

EP 08105691 A 20081029

Priority

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Abstract (en)

[origin: EP2182081A1] The method for thermal treatment of an aluminum-silicon coated steel sheet body (1) before a hot forming process, comprises fixing the steel sheet body in its position, contacting a first contact plate (2) with a first surface section (6) of the steel sheet body, contacting a second contact plate (3) with a second surface section (7) of the steel sheet body, forming the contact plates flatly or completely corresponding to the contour of the surface sections of the steel sheet body, and arranging the contact plates parallel to each other in the state of contact with the steel sheet body. The method for thermal treatment of an aluminum-silicon coated steel sheet body (1) before a hot forming process, comprises fixing the steel sheet body in its position, contacting a first contact plate (2) with a first surface section (6) of the steel sheet body, contacting a second contact plate (3) with a second surface section (7) of the steel sheet body, forming the contact plates flatly or completely corresponding to the contour of the surface sections of the steel sheet body, and arranging the contact plates parallel to each other in the state of contact with the steel sheet body in a running manner, where one of the contact plates possesses high temperature against the steel sheet body during contacting the steel sheet body. The contact plate with high temperature during contacting has a temperature of 20-250[deg] C above a temperature A c 3. The steel sheet body has a temperature above the temperature A c 3 for a time period of 10-30 seconds. The steel sheet body contacts the both contact plates for a time period of 15-40 seconds. The contact plates are pressed onto the steel sheet body. The temperature in a partial area of the contact plate with high temperature is regulated by a temperature regulating device before and/or during contacting the steel sheet body with the contact plates and/or is controlled by a temperature controlling device. One of the contact plates is removed in a further process step. The steel sheet body is directly shaped in a subsequent working step and the first and second surface sections lie in the or in the vicinity of the area to be shaped. The steel sheet body is contacted with a cooling plate in a subsequent process step after heating, where the cooling plate is cooled and has a temperature of 400-600[deg] C against the steel sheet body. An independent claim is included for a device thermal treatment of an aluminum-silicon coated steel sheet body before a hot forming process.

IPC 8 full level

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CPC (source: EP)

B21J 1/06 (2013.01); **C21D 1/34** (2013.01); **C21D 11/00** (2013.01)

Cited by

EP3276012A1; DE102014101539A1; EP2395116A3; CN102266900A; CN113528940A; EP2730346A1; CN103805761A; EP2730665A1; EP2977472A1; EP2570204A3; CN104894352A; DE102014101539B4; DE102014101539B9; DE102011053672B4; US11131001B2; US9694408B2; WO2015158568A3; WO2017025632A1; WO2016012442A1; US10612108B2; EP2907881A2; EP2497840B1; EP2497840B2

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