

Title (en)
METHOD FOR HEATING A METAL COMPONENT TO A TARGET TEMPERATURE AND CORRESPONDING ROLLER HEARTH FURNACE

Title (de)
VERFAHREN ZUM ERWÄRMEN EINES METALLISCHEN BAUTEILS AUF EINE ZIELTEMPERATUR UND ENTSPRECHENDER ROLLENHERDOFEN

Title (fr)
PROCÉDÉ POUR CHAUFFER UNE PIÈCE MÉTALLIQUE À UNE TEMPÉRATURE FINALE ET FOUR À ROULEAUX CORRESPONDANT

Publication
EP 3676408 A1 20200708 (DE)

Application
EP 18765599 A 20180831

Priority
• DE 102017120128 A 20170901
• EP 2018073474 W 20180831

Abstract (en)
[origin: WO2019043161A1] The method for heating a metal component (2) to a target temperature (3), in which the component (2) has a preliminary coating (7) and is passed through a furnace (1) that has at least four zones (9, 10, 11, 12), which can be respectively adjusted to an individual zone temperature (13, 14, 15, 3), wherein the component (2) is passed successively through at least an initial heating zone (9), a plateau zone (10), a peak heating zone (11) and an end zone (12) and wherein the initial heating zone (9) is adjusted to an initial heating temperature (13), the plateau zone (10) is adjusted to a plateau temperature (14), the peak heating zone (11) is adjusted to a peak temperature (15) and the end zone (12) is adjusted to the target temperature (3), the plateau temperature (14) being chosen such that the temperature of the component (2) in the plateau zone (10) lies in a band around a melting temperature of the preliminary coating (7), is characterized in that the peak temperature (15) lies at least 100 K [kelvins] above the target temperature (3).

IPC 8 full level
C21D 9/00 (2006.01); **F27B 9/24** (2006.01)

CPC (source: EP US)
C21D 9/0056 (2013.01 - EP US); **C21D 9/0062** (2013.01 - US); **F27B 9/10** (2013.01 - EP US); **F27B 9/2407** (2013.01 - EP US); **F27D 19/00** (2013.01 - EP); **F27D 21/00** (2013.01 - EP); **C21D 1/673** (2013.01 - EP)

Citation (search report)
See references of WO 2019043161A1

Cited by
EP4074845A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102017120128 A1 20190307; CN 111108221 A 20200505; EP 3676408 A1 20200708; EP 3676408 B1 20220713; ES 2926293 T3 20221025; HU E059961 T2 20230128; MX 2020002291 A 20200713; PL 3676408 T3 20221121; US 11584972 B2 20230221; US 2021155996 A1 20210527; WO 2019043161 A1 20190307

DOCDB simple family (application)
DE 102017120128 A 20170901; CN 201880056897 A 20180831; EP 18765599 A 20180831; EP 2018073474 W 20180831; ES 18765599 T 20180831; HU E18765599 A 20180831; MX 2020002291 A 20180831; PL 18765599 T 20180831; US 201816642404 A 20180831