

Title (en)

METHOD AND MOLD TOOL OR CORE TOOL FOR PRODUCING MOLDS OR CORES

Title (de)

VERFAHREN UND FORM- ODER KERNWERKZEUG ZUR HERSTELLUNG VON FORMEN ODER KERNEN

Title (fr)

PROCÉDÉ ET OUTIL DE MOULAGE OU OUTIL À NOYAU DESTINÉS À FABRIQUER DES MOULES OU DES NOYAUX

Publication

EP 3551358 A1 20191016 (DE)

Application

EP 17816409 A 20171120

Priority

- DE 102016224183 A 20161206
- DE 102017217096 A 20170926
- DE 2017100995 W 20171120

Abstract (en)

[origin: WO2018103784A1] The invention relates to a method for more quickly producing molds (2) or cores (2') for foundry purposes by adapting the specific electrical resistance in the selection of the core box to the mixture (9) of a molding material and of a water-containing binder, which binder, when dissolved, forms an electrolyte and has a sufficient electrical conductivity. It is essential to the invention that an electrically conductive material (7) for holding the mixture (9) is introduced into an electrically non-conductive housing (3), wherein the specific electrical conductivity of the material (7) at operating temperature (7) at least approximately corresponds to the specific electrical conductivity of the mixture (9) at temperatures between 100 °C and 130 °C, and that electrical energy and thus heat are supplied to the material (7) via electrodes (10) arranged in/on the housing (3) (resistance heating principle), leading to curing of the mixture (9). Depending on the sand core, up to 30 % shorter cycle times can be achieved.

IPC 8 full level

B22C 1/02 (2006.01); **B22C 7/06** (2006.01); **B22C 9/12** (2006.01)

CPC (source: EP US)

B22C 1/02 (2013.01 - US); **B22C 1/10** (2013.01 - EP US); **B22C 1/18** (2013.01 - EP US); **B22C 1/188** (2013.01 - US); **B22C 7/06** (2013.01 - EP US); **B22C 7/065** (2013.01 - EP US); **B22C 7/067** (2013.01 - EP US); **B22C 9/12** (2013.01 - EP US)

Citation (search report)

See references of WO 2018103784A1

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 102017217096 B3 20180322; CN 110248747 A 20190917; CN 110248747 B 20210716; DE 102017217098 B3 20180405; EP 3551358 A1 20191016; EP 3551358 B1 20210113; EP 3551359 A1 20191016; JP 2019536638 A 20191219; US 10967420 B2 20210406; US 2020188988 A1 20200618; US 2020391279 A1 20201217; WO 2018103784 A1 20180614; WO 2018103792 A1 20180614

DOCDB simple family (application)

DE 102017217096 A 20170926; CN 201780085087 A 20171120; DE 102017217098 A 20170926; DE 2017100995 W 20171120; DE 2017101039 W 20171202; EP 17816409 A 20171120; EP 17825733 A 20171202; JP 2019549631 A 20171120; US 201716466319 A 20171120; US 201716466325 A 20171202