

Title (en)

METHOD AND DEVICE FOR PRODUCING MOLDED PARTS FROM A CONTINUOUS FIBER-MATERIAL SHEET

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON FORMTEILEN AUS EINER FASERWERKSTOFFBAHN

Title (fr)

PROCÉDÉ ET DISPOSITIF DE FABRICATION DE PIÈCES MOULÉES À PARTIR D'UNE BANDE DE MATIÈRE FIBREUSE

Publication

EP 3140200 B1 20180418 (DE)

Application

EP 15726515 A 20150430

Priority

- DE 102014106427 A 20140508
- DE 2015100175 W 20150430

Abstract (en)

[origin: WO2015169280A1] The invention relates to a method and to a device for producing three-dimensional molded parts from a continuous sheet (1) of a planar, plastically deformable fiber material by deep drawing by means of a punch (8) and an associated die (7), wherein the fiber material can be deformed between the punch and the die by means of a relative motion. The problem addressed by the invention is providing a method and a device for producing three-dimensional molded parts, wherein the deformation occurs by deep drawing from a blank located in the continuous sheet and leads to a high deformation ratio. This problem is solved in that the round, rectangular, oval, or irregular blank for the molded part is connected to the continuous sheet of fiber material by at least one web during the deep drawing and, in addition, is detached from the continuous sheet by at least one relief step (4), wherein a deformation ratio, as a ratio of diameter and depth, greater than 0.2 can be realized.

IPC 8 full level

B65B 9/04 (2006.01); **B31B 50/59** (2017.01); **B31F 1/00** (2006.01)

CPC (source: EP US)

B31B 50/60 (2017.07 - EP US); **B31F 1/0077** (2013.01 - EP US); **B65B 7/16** (2013.01 - US); **B65B 47/04** (2013.01 - EP US);
B65B 61/06 (2013.01 - US); **B26F 2001/4427** (2013.01 - EP); **B31B 50/592** (2018.04 - EP US); **B31B 2105/00** (2017.07 - EP US);
B31B 2110/00 (2017.07 - EP US); **B65B 7/28** (2013.01 - EP US); **B65B 61/065** (2013.01 - EP US)

Cited by

EP4265392A1

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

DOCDB simple family (publication)

DE 102014106427 A1 20151112; EP 3140200 A1 20170315; EP 3140200 B1 20180418; US 2017057678 A1 20170302;
WO 2015169280 A1 20151112

DOCDB simple family (application)

DE 102014106427 A 20140508; DE 2015100175 W 20150430; EP 15726515 A 20150430; US 201515308371 A 20150430