

Title (en)

METHOD OF MANUFACTURING TEXTURED - SMOOTH HYBRID METAL CLOSURE CAPS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON TEXTURIERTEN GLATTEN HYBRIDMETALLVERSCHLUSSKAPPEN

Title (fr)

PROCÉDÉ DE FABRICATION DE CAPSULES DE BOUCHAGE MÉTALLIQUES MIXTES TEXTURÉES LISSES

Publication

EP 3188855 B1 20180606 (FR)

Application

EP 15766910 A 20150902

Priority

- FR 1401986 A 20140905
- FR 2015052317 W 20150902

Abstract (en)

[origin: WO2016034813A1] The method comprises: a) supplying a strip or sheet of aluminium alloy, known to those skilled in the art as a "textured" strip or sheet, typically coated on at least one of its two faces, generally the face intended to be on the inside of the cap, with a coat of deep-drawing boundary lubricant, b) a first operation of cutting into disks known as blanks, c) a step of deep drawing said metal in blank form, in one or more passes typically using a deep-drawing boundary lubricant, so as to form a drawn pre-form, comprising a head and a skirt, typically exhibiting symmetry of revolution about an axial direction, d) a step of degreasing said drawn preform, which step is intended typically to eliminate remains of boundary lubricant so as to form a degreased preform that can be lacquered, e) a possible step of applying a protective and decorative lacquer, and is characterized in that it comprises, after the deep-drawing step and prior to the lacquering step, at least one ironing step consisting in passing the drawn preform through ironing rings in order to stretch out and thin the metal. The invention also relates to a closure cap thus produced. Advantages: the textured appearance is maintained over the entire surface of the head of the cap whereas a smooth or bright appearance is obtained over the entire height of the skirt or wall of the cap.

IPC 8 full level

B21D 22/28 (2006.01); **B21D 51/44** (2006.01)

CPC (source: CN EP RU US)

B21D 22/28 (2013.01 - EP RU US); **B21D 51/44** (2013.01 - EP US); **B21D 51/48** (2013.01 - CN); **B65D 41/04** (2013.01 - US);
B65D 41/62 (2013.01 - EP US)

Cited by

WO2020225288A1; FR3095769A1; FR3095768A1

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)

WO 2016034813 A1 20160310; AR 101769 A1 20170111; CN 106687231 A 20170517; CN 106687231 B 20190426; EP 3188855 A1 20170712; EP 3188855 B1 20180606; FR 3025505 A1 20160311; FR 3025505 B1 20190322; JP 2017529243 A 20171005; JP 6649365 B2 20200219; RU 2017111041 A 20181005; RU 2017111041 A3 20190227; RU 2693976 C2 20190708; US 10787295 B2 20200929; US 2017283126 A1 20171005

DOCDB simple family (application)

FR 2015052317 W 20150902; AR P150102840 A 20150904; CN 201580047728 A 20150902; EP 15766910 A 20150902;
FR 1401986 A 20140905; JP 2017512664 A 20150902; RU 2017111041 A 20150902; US 201515507793 A 20150902