

Title (en)

METHOD AND APPARATUS FOR MANUFACTURING A LIQUID-FILLED CAPSULE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINER FLÜSSIGKEITSGEFÜLLTEN KAPSEL

Title (fr)

PROCÉDÉ ET APPAREIL DE FABRICATION D'UNE CAPSULE REMPLIE DE LIQUIDE

Publication

EP 3490891 B1 20210915 (EN)

Application

EP 17742264 A 20170726

Priority

- EP 16181524 A 20160727
- EP 2017068846 W 20170726

Abstract (en)

[origin: WO2018019868A1] The present invention provides a method of manufacturing liquid-filled capsules for use in smoking articles. The method comprises the steps of: providing a capsule shell (101) defining a cavity (106) and having an open end (105); dispensing a volume of liquid (L) into the cavity (106) through the open end (105) of the shell (101), whereby a clearance (δ) is left between an upper surface of the liquid (L) dispensed into the cavity (106) and the open end (105) of the shell (101); and sealing the open end (105) of the shell (101) with a portion of sheet material to provide a liquid-filled capsule (100) containing the volume of liquid (L). The present invention also provides an apparatus for manufacturing liquid-filled capsules for use in smoking articles. The apparatus comprises: a holder for holding one or more capsule shells (101); a conveyor for moving or transporting the holder with the one or more capsule shells (101); a filling station (3) for dispensing a liquid into a cavity (106) of each of the capsule shells (101) held by the holder, wherein the filling station (3) is configured to provide a pre-defined clearance (δ) between the liquid dispensed into the cavity (106) and the open end (105) of each shell (101); and a sealing station (4) for covering and sealing an open end (105) of each capsule shell (101) with a sheet material to form a capsule (100). The invention further provides a liquid-filled capsule (100) for use in smoking articles, wherein the capsule comprises: a capsule shell (101) defining a cavity (106) and having an end (105) providing a filling opening; a volume of liquid (L) contained within the cavity (106); and a cap (102) which covers and seals the end (105). A pre-defined clearance (δ) is provided between an upper surface of the liquid (L) contained in the cavity (106) and the end (105) of the shell (101).

IPC 8 full level

B65B 43/54 (2006.01); **B65B 3/00** (2006.01); **B65B 3/04** (2006.01); **B65B 7/16** (2006.01); **B65B 57/10** (2006.01)

CPC (source: EA EP KR US)

A24D 3/048 (2013.01 - EP KR US); **A24D 3/061** (2013.01 - EP KR US); **B65B 3/003** (2013.01 - EA EP KR US); **B65B 3/04** (2013.01 - EA EP KR US); **B65B 7/164** (2013.01 - EA EP KR US); **B65B 43/54** (2013.01 - EA EP KR US); **B65B 57/10** (2013.01 - EA EP KR US); **A24F 47/008** (2022.01 - EA)

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 2018019868 A1 20180201; CA 3029166 A1 20180201; CN 109476389 A 20190315; EA 201990287 A1 20190628; EP 3490891 A1 20190605; EP 3490891 B1 20210915; ES 2897894 T3 20220303; JP 2019526502 A 20190919; JP 7216636 B2 20230201; KR 102407787 B1 20220613; KR 20190029713 A 20190320; PL 3490891 T3 20220131; TW 201803466 A 20180201; US 2019216128 A1 20190718

DOCDB simple family (application)

EP 2017068846 W 20170726; CA 3029166 A 20170726; CN 201780045168 A 20170726; EA 201990287 A 20170726; EP 17742264 A 20170726; ES 17742264 T 20170726; JP 2019502653 A 20170726; KR 20197004791 A 20170726; PL 17742264 T 20170726; TW 106125109 A 20170726; US 201716312731 A 20170726