

Title (en)
THREADED CLOSURE WITH INTERNAL RIBS

Title (de)
GEWINDEVERSCHLUSS MIT INNEREN RIPPEN

Title (fr)
FERMETURE FILETÉE AVEC NERVURES INTERNES

Publication
EP 2197758 A4 20120125 (EN)

Application
EP 08795018 A 20080804

Priority
• US 2008009376 W 20080804
• US 89190707 A 20070814

Abstract (en)
[origin: WO2009023102A1] An internally threaded plastic closure in accordance with the present invention includes an array of axially extending, circumferentially spaced internal ribs which intersect the internal thread formation of the closure. By this arrangement, vent passages are defined between adjacent ones of the internal ribs, thus providing the closure with desirable gas venting characteristics, while avoiding the provision of vent grooves extending into the inside surface of the closure side wall, which can undesirably impair the strength of the side wall. By the present construction, the amount of polymeric material from which the closure is formed can be desirably reduced, while maintaining the desired dimensional characteristics of the closure, to facilitate use with existing containers and high-speed capping equipment.

IPC 8 full level
B65D 41/04 (2006.01); **B65D 41/34** (2006.01); **B65D 51/16** (2006.01)

CPC (source: EP US)
B65D 41/04 (2013.01 - EP US); **B65D 41/0407** (2013.01 - EP US); **B65D 41/0435** (2013.01 - EP US); **B65D 41/0471** (2013.01 - EP US); **B65D 41/3447** (2013.01 - EP US); **B65D 51/1688** (2013.01 - EP US)

Citation (search report)
• [XP] WO 2007132254 A1 20071122 - CONSTAR INT INC [US], et al
• [X] US 6123212 A 20000926 - RUSSELL MARK N [US], et al
• [XY] EP 0239873 A2 19871007 - HC IND [US]
• [X] WO 9728057 A1 19970807 - CROWN CORK AG [CH], et al
• [XA] EP 1048585 A2 20001102 - OWENS ILLINOIS CLOSURE INC [US]
• [Y] EP 0263699 A2 19880413 - ETHYL MOLDED PROD [US]
• See references of WO 2009023102A1

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

DOCDB simple family (publication)
WO 2009023102 A1 20090219; AU 2008287506 A1 20090219; AU 2008287506 B2 20131121; BR PI0815420 A2 20150210; CA 2695987 A1 20090219; CN 101801805 A 20100811; EP 2197758 A1 20100623; EP 2197758 A4 20120125; JP 2010536665 A 20101202; MX 2010001635 A 20100315; RU 2010109399 A 20110920; US 2009045158 A1 20090219; ZA 201001065 B 20110330

DOCDB simple family (application)
US 2008009376 W 20080804; AU 2008287506 A 20080804; BR PI0815420 A 20080804; CA 2695987 A 20080804; CN 200880106839 A 20080804; EP 08795018 A 20080804; JP 2010520983 A 20080804; MX 2010001635 A 20080804; RU 2010109399 A 20080804; US 89190707 A 20070814; ZA 201001065 A 20100212