

Title (en)

FLEXIBLE CONTAINER WITH THREE-DIMENSIONAL RANDOM LOOP MATERIAL

Title (de)

FLEXIBLER BEHÄLTER MIT DREIDIMENSIONALEM ZUFALLSSCHLEIFENMATERIAL

Title (fr)

RÉCIPIENT FLEXIBLE COMPORTANT UN MATÉRIAU À BOUCLE ALÉATOIRE TRIDIMENSIONNELLE

Publication

EP 3409614 A1 20181205 (EN)

Application

EP 17382316 A 20170531

Priority

EP 17382316 A 20170531

Abstract (en)

The present disclosure provides a flexible container (10). In an embodiment, the flexible container comprises a first multilayer film (12) and a second multilayer film (14). Each multilayer film comprises a seal layer. The multilayer films are arranged such that seal layers oppose each other and the second multilayer film is superimposed on the first multilayer film. The films are sealed along a common peripheral edge (16) to form a closed chamber (18). In one embodiment, a free moving sheet (28) of three-dimensional random loop material (3DRLM) is located the closed chamber. In another embodiment, an oversized sheet (128) of 3DRLM is located in the closed chamber.

IPC 8 full level

B65D 75/00 (2006.01); **B65D 75/54** (2006.01)

CPC (source: EP US)

B65D 75/008 (2013.01 - EP US); **B65D 75/54** (2013.01 - EP); **B65D 75/5883** (2013.01 - US); **B65D 83/0055** (2013.01 - US); **B65D 85/72** (2013.01 - US); **B65D 2231/001** (2013.01 - EP US)

Citation (applicant)

- US 6111023 A 20000829 - CHUM PAK-WING STEVE [US], et al
- US 5677383 A 19971014 - CHUM PAK-WING STEVE [US], et al
- US 6984695 B2 20060110 - BROWN STEPHEN JOHN [CA], et al
- US 5783638 A 19980721 - LAI SHIH-YAW [US], et al
- US 3645992 A 19720229 - ELSTON CLAYTON TREVOR
- US 4798081 A 19890117 - HAZLITT LONNIE G [US], et al
- US 5089321 A 19920218 - CHUM PAK-WING S [US], et al
- US 7803728 B2 20100928 - POON BENJAMIN C [US], et al
- "Periodic Table of the Elements", 2003, CRC PRESS, INC.
- B MONRABAL ET AL., MACROMOL. SYMP., vol. 257, 2007, pages 71 - 79
- WILLIAMS; WARD, J. POLYM. SCI., POLYM. LET., vol. 6, 1968, pages 621
- KARJALA, TERESA P.; SAMMLER, ROBERT L.; MANGNUS MARC A.; HAZLITT, LONNIE G.; JOHNSON, MARK S.; HAGEN, CHARLES M., JR.; HUANG, JOE: "Detection of low levels of long-chain branching in polyolefins", ANNUAL TECHNICAL CONFERENCE — SOCIETY OF PLASTICS ENGINEERS, vol. 66, 2008, pages 887 - 891

Citation (search report)

- [Y] US 4381846 A 19830503 - HECK SAMUEL C
- [YA] WO 8600868 A1 19860213 - SCHOLLE CORP [US]
- [A] US 2006053749 A1 20060316 - SCANLAN GREGORY P [US]

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)

EP 3409614 A1 20181205; AR 111954 A1 20190904; BR 112019024453 A2 20200616; CN 110621590 A 20191227; EP 3630644 A1 20200408; JP 2020521678 A 20200727; MX 2019013973 A 20200123; TW 201902792 A 20190116; US 2020148455 A1 20200514; WO 2018222518 A1 20181206

DOCDB simple family (application)

EP 17382316 A 20170531; AR P180101374 A 20180523; BR 112019024453 A 20180525; CN 201880032719 A 20180525; EP 18729008 A 20180525; JP 2019564517 A 20180525; MX 2019013973 A 20180525; TW 107117017 A 20180518; US 2018034579 W 20180525; US 201816618272 A 20180528