

Title (en)

IMPROVEMENTS IN METHOD AND APPARATUS FOR INTEGRAL DOUBLE-WALLED CONTAINER STRUCTURES

Title (de)

VERBESSERUNGEN AN VERFAHREN UND VORRICHTUNGEN FÜR INTEGRALE DOPPELWANDIGE BEHÄLTERSTRUKTUREN

Title (fr)

AMÉLIORATIONS APPORTÉES À UN PROCÉDÉ ET À UN APPAREIL POUR DES STRUCTURES DE RÉCIPIENTS À DOUBLE PAROI INTÉGRÉES

Publication

EP 3745927 A4 20210804 (EN)

Application

EP 19744562 A 20190128

Priority

- NZ 73946118 A 20180129
- IB 2019050684 W 20190128

Abstract (en)

[origin: CN111867430A] A method and apparatus for the formation of double-walled containers with two integrally connected containers, with an air gap between them, moulded as a single thermoplastic body. A thermoplastic tubular blank is formed and heat-conditioned. The tubular blank is then stretched and formed by gas pressure to conform to the shape of a mould cavity. Additional heat-conditioning is applied to the second container. An inversion piston shaped as a male mould member with an outer surface that defines the inner surface of the article and a second container shaped mould cavity set with a single-container shaped configuration are provided along with stability devices which are applied to the wall surfaces of the connected containers, such that the second smaller container side wall(s) are at least substantially not in contact with the second container shaped mould cavity set, while at the same time the second container bottom wall does not invert.

IPC 8 full level

A47G 19/22 (2006.01); **B29B 11/14** (2006.01); **B29C 49/12** (2006.01); **B29C 49/42** (2006.01); **B29C 53/10** (2006.01); **B29C 69/00** (2006.01); **C03C 27/10** (2006.01); **B29C 49/06** (2006.01); **B29C 49/48** (2006.01); **B29L 31/00** (2006.01)

CPC (source: EP)

A47G 19/2288 (2013.01); **B29B 11/14** (2013.01); **B29C 49/071** (2022.05); **B29C 49/4273** (2013.01); **B29C 49/4802** (2013.01); **B29C 69/00** (2013.01); **A47G 2019/2277** (2013.01); **B29C 49/06** (2013.01); **B29C 49/12** (2013.01); **B29C 53/10** (2013.01); **B29C 2049/4807** (2013.01); **B29C 2049/4825** (2013.01); **B29C 2049/4838** (2013.01); **B29C 2791/001** (2013.01); **B29C 2949/0715** (2022.05); **B29C 2949/0771** (2022.05); **B29C 2949/08** (2022.05); **B29K 2995/0015** (2013.01); **B29L 2031/7132** (2013.01); **B29L 2031/7158** (2013.01); **B29L 2031/7166** (2013.01)

Citation (search report)

- [A] US 3182842 A 19650511 - RUDOLF HUG
- [A] DE 19618034 C1 19980326 - FISCHER W MUELLER BLASFORMTECH [DE]
- [A] DE 2341400 A1 19750220 - FRUPACK PLASTIC KUNSTSTOFFVERA, et al
- [A] WO 2004009329 A1 20040129 - AUTOLIV DEV [SE], et al
- [A] US 9339979 B2 20160517 - CRAWLEY ALAN MARK [NZ]
- See references of WO 2019145924A2

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)

CN 111867430 A 20201030; EP 3745927 A2 20201209; EP 3745927 A4 20210804

DOCDB simple family (application)

CN 201980019122 A 20190128; EP 19744562 A 20190128