

Title (en)

METHOD OF SHRINKING A SHRINK-FIT FILM ONTO PACKS

Title (de)

VERFAHREN ZUM AUFSCHRUMPFEN EINER SCHRUMPFOLIE AUF VERPACKUNGEN

Title (fr)

PROCÉDÉ POUR EMMANCHER UN FILM RÉTRACTABLE SUR DES EMBALLAGES

Publication

**EP 2049401 B2 20131023 (DE)**

Application

**EP 07786448 A 20070731**

Priority

- EP 2007006750 W 20070731
- DE 102006036590 A 20060804

Abstract (en)

[origin: US9032696B2] A method of shrinking a heat shrinkable film onto product units, in which a heat shrinkable film is wrapped around a product unit so as to form an opening in the heat shrinkable film on a side of the product unit. A hot, gaseous medium is then emitted from at least one discharge or nozzle to thereby shrink the heat shrinkable film on the product unit while simultaneously moving the product unit on a conveying arrangement along a transport path. The emission of the hot, gaseous medium is controlled such that essentially all of the hot, gaseous medium emitted from the at least one discharge to shrink the heat shrinkable film on the product unit, during movement of the product unit along the transport path, is directed at the side of the product unit having the opening in the heat shrinkable film.

IPC 8 full level

**B65B 53/06** (2006.01)

CPC (source: EP US)

**B65B 53/06** (2013.01 - EP US); **B65B 53/063** (2013.01 - EP US); **B65B 53/066** (2013.01 - EP US)

Citation (opposition)

Opponent :

- US 4979314 A 19901225 - FRESNEL JACQUES [FR]
- DE 19920057 A1 20001109 - KALLFASS GMBH [DE]
- WO 0236436 A1 20020510 - NEAGLE CLAUDE ANDREW [US], et al

Cited by

DE102010032455B4; DE102010032455A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2010031608 A1 20100211**; **US 9032696 B2 20150519**; AT E481325 T1 20101015; BR PI0714079 A2 20121218; CN 101511679 A 20090819; DE 102006036590 A1 20080207; DE 502007005069 D1 20101028; EP 2049401 A1 20090422; EP 2049401 B1 20100915; EP 2049401 B2 20131023; JP 2009545495 A 20091224; MX 2009001297 A 20090316; RU 2009107683 A 20100910; WO 2008014968 A1 20080207

DOCDB simple family (application)

**US 36386509 A 20090202**; AT 07786448 T 20070731; BR PI0714079 A 20070731; CN 200780032726 A 20070731; DE 102006036590 A 20060804; DE 502007005069 T 20070731; EP 07786448 A 20070731; EP 2007006750 W 20070731; JP 2009522161 A 20070731; MX 2009001297 A 20070731; RU 2009107683 A 20070731