

Title (en)  
DEVICE AND METHOD FOR PRODUCING THICK-WALLED PLASTIC MOLDED PARTS HAVING REDUCED SHRINKAGE SITES BY INJECTION MOLDING OR EMBOSSING

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR HERSTELLUNG DICKWANDIGER KUNSTSTOFFFORMTEILE MIT VERRINGERTEN EINFALLSTELLEN DURCH SPRITZGIESSEN ODER PRÄGEN

Title (fr)  
DISPOSITIF ET PROCÉDÉ DE FABRICATION DE PIÈCES MOULÉES EN PLASTIQUE À PAROI ÉPAISSE PRÉSENTANT UNE RÉDUCTION DES DÉPRESSIONS EN SURFACE, PAR MOULAGE PAR INJECTION OU INJECTION-COMPRESSION

Publication  
**EP 2454070 A1 20120523 (DE)**

Application  
**EP 10724351 A 20100525**

Priority  
• EP 2010057097 W 20100525  
• DE 102009027646 A 20090713

Abstract (en)  
[origin: CA2768052A1] The invention relates to a device and method for producing thick-walled plastic molded parts by injection molding or embossing. The device comprises a mold for injection molding or embossing, having a cavity, and is characterized in that the mold comprises a wall region adjacent to the cavity, and a body removed from the cavity and adjacent to the wall region near the cavity, wherein the body of the mold is designed for a temperature T1 and the wall region is designed for a temperature T2 different from the temperature T1. According to the method, the temperature T2 of the wall region of the mold near the cavity is brought to and held at a value greater than the Vicat temperature Tv of the plastic molding mass before and/or during the injection process, wherein the temperature T2 is greater than the temperature T1 of the mold body, and the temperature T2 of the wall region near the cavity is brought to a temperature below the Vicat temperature Tv of the plastic molding mass during the solidification of the plastic molding mass. The result is thick-walled molded plastic parts, such as optical lenses and the like, having reduced shrinkage sites.

IPC 8 full level  
**B29C 45/00** (2006.01); **B29C 45/56** (2006.01); **B29C 45/73** (2006.01)

CPC (source: EP KR US)  
**B29C 45/00** (2013.01 - KR); **B29C 45/0025** (2013.01 - EP US); **B29C 45/56** (2013.01 - KR); **B29C 45/561** (2013.01 - EP US); **B29C 45/73** (2013.01 - EP KR US); **B29C 2045/5635** (2013.01 - EP US); **B29C 2045/7343** (2013.01 - EP US); **B29C 2045/7393** (2013.01 - EP US); **B29C 2945/76531** (2013.01 - EP US); **B29C 2945/76739** (2013.01 - EP US); **B29L 2011/0016** (2013.01 - EP US)

Citation (search report)  
See references of WO 2011006704A1

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 SE SI SK SM TR

DOCDB simple family (publication)  
**DE 102009027646 A1 20110120**; BR 112012000957 A2 20160315; CA 2768052 A1 20110120; CN 102470575 A 20120523; EP 2454070 A1 20120523; JP 2012532777 A 20121220; KR 20120038964 A 20120424; MX 2012000633 A 20120208; RU 2012104753 A 20130820; SG 177652 A1 20120228; TW 201127605 A 20110816; US 2012171452 A1 20120705; WO 2011006704 A1 20110120

DOCDB simple family (application)  
**DE 102009027646 A 20090713**; BR 112012000957 A 20100525; CA 2768052 A 20100525; CN 201080029176 A 20100525; EP 10724351 A 20100525; EP 2010057097 W 20100525; JP 2012519946 A 20100525; KR 20127000892 A 20100525; MX 2012000633 A 20100525; RU 2012104753 A 20100525; SG 2012002606 A 20100525; TW 99122478 A 20100708; US 201013375843 A 20100525