

Title (en)
METHOD FOR JOINING A JOINING PARTNER MADE OF A THERMOPLASTIC MATERIAL TO A JOINING PARTNER MADE OF GLASS

Title (de)
VERFAHREN ZUM FÜGEN EINES FÜGEPARTNERS AUS EINEM THERMOPLASTISCHEN KUNSTSTOFF MIT EINEM FÜGEPARTNER AUS GLAS

Title (fr)
PROCÉDÉ POUR L'ASSEMBLAGE D'UNE PIÈCE À ASSEMBLER EN UNE MATIÈRE PLASTIQUE THERMOPLASTIQUE, AVEC UNE PIÈCE À ASSEMBLER EN VERRE

Publication
EP 2917023 A1 20150916 (DE)

Application
EP 13789256 A 20131106

Priority
• DE 102012220285 A 20121107
• EP 2013073125 W 20131106

Abstract (en)
[origin: WO2014072322A1] Disclosed is a method for joining a joining partner made of a thermoplastic material to a joining partner made of glass, characterised by the following method steps: producing a thermoplastic joining partner (2) made of a laser-absorbing thermoplastic material; producing a glass joining partner (1) made of a laser-transmissive glass material; superimposing the thermoplastic joining partner (2) and the glass joining partner (1) by applying a joining force (F) to the joining partners (1, 2); heating the glass joining partner (1), in particular using radiation (15); and applying a laser processing beam (3) onto the boundary surface (20) of the thermoplastic joining partner (2) through the glass joining partner (1) into a joining zone (18) so as to melt the thermoplastic joining partner (2) and so as to form a bond between the two joining partners (1, 2) in the joining zone (18) in conjunction with the cooling thereof.

IPC 8 full level
B29C 65/16 (2006.01); **B29C 65/14** (2006.01); **B29C 65/44** (2006.01); **B29C 65/72** (2006.01); **B29K 709/08** (2006.01)

CPC (source: EP US)
B29C 65/14 (2013.01 - US); **B29C 65/1412** (2013.01 - EP); **B29C 65/16** (2013.01 - US); **B29C 65/1635** (2013.01 - EP US); **B29C 65/1654** (2013.01 - EP US); **B29C 65/44** (2013.01 - EP US); **B29C 65/72** (2013.01 - EP US); **B29C 65/8253** (2013.01 - EP US); **B29C 66/1122** (2013.01 - EP US); **B29C 66/343** (2013.01 - EP US); **B29C 66/41** (2013.01 - EP US); **B29C 66/712** (2013.01 - EP US); **B29C 66/73112** (2013.01 - EP US); **B29C 66/7392** (2013.01 - EP US); **B29C 66/7465** (2013.01 - EP US); **B29C 66/8362** (2013.01 - EP US); **B32B 37/04** (2013.01 - US); **B32B 37/06** (2013.01 - US); **B32B 37/182** (2013.01 - US); **B32B 38/0008** (2013.01 - US); **B29C 65/1612** (2013.01 - EP US); **B29C 65/1616** (2013.01 - EP US); **B29C 66/02245** (2013.01 - EP US); **B29C 66/0246** (2013.01 - EP US); **B29C 66/028** (2013.01 - EP US); **B29C 66/43** (2013.01 - EP US); **B29C 66/71** (2013.01 - EP US); **B29C 66/7352** (2013.01 - EP US); **B29C 66/863** (2013.01 - EP US); **B29C 66/919** (2013.01 - EP); **B29C 66/9231** (2013.01 - EP US); **B29C 66/929** (2013.01 - EP US); **B29C 66/939** (2013.01 - EP); **B29C 66/949** (2013.01 - EP US); **B29L 2031/3475** (2013.01 - US); **B32B 2307/412** (2013.01 - US); **B32B 2457/20** (2013.01 - US)

C-Set (source: EP US)
1. **B29C 66/71 + B29K 2023/12**
2. **B29C 66/71 + B29K 2023/06**
3. **B29C 66/71 + B29K 2055/02**
4. **B29C 66/71 + B29K 2033/12**
5. **B29C 66/71 + B29K 2069/00**
6. **B29C 66/71 + B29K 2067/003**
7. **B29C 66/71 + B29K 2079/085**
8. **B29C 66/71 + B29K 2077/00**
9. **B29C 66/71 + B29K 2023/38**
10. **B29C 66/71 + B29K 2033/08**
11. **B29C 66/71 + B29K 2025/08**

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)
WO 2014072322 A1 20140515; DE 102012220285 A1 20140612; EP 2917023 A1 20150916; JP 2016502475 A 20160128; US 2015298391 A1 20151022

DOCDB simple family (application)
EP 2013073125 W 20131106; DE 102012220285 A 20121107; EP 13789256 A 20131106; JP 2015541111 A 20131106; US 201314440966 A 20131106