

Title (en)  
SPACER FOR INSULATING GLAZING

Title (de)  
ABSTANDSHALTER FÜR ISOLIERVERGLASUNGEN

Title (fr)  
ENTRETOISE POUR VITRAGES ISOLANTS

Publication  
**EP 3198101 B1 20180815 (DE)**

Application  
**EP 15771064 A 20150918**

Priority  
• EP 14186342 A 20140925  
• EP 2015071452 W 20150918

Abstract (en)  
[origin: WO2016046081A1] The invention relates to a spacer (1) for multi-pane insulating glazing units, at least comprising: a polymeric main body (2), which comprises two pane contact surfaces (3.1, 3.2) extending parallel to each other, a glazing interior surface (4), and an adhesive bonding surface (5), wherein the pane contact surfaces (3.1, 3.2) and the adhesive bonding surface (5) are connected to each other directly or by means of connection surfaces (6.1, 6.2); and an insulation film (10), which is applied at least to the adhesive bonding surface (5), wherein the insulation film (10) has a metal-containing barrier layer (12) facing the adhesive bonding surface (5) and having a thickness of 1 µm to 20 µm, and the insulation film (10) comprises a polymeric layer (13) having a thickness of 5 µm to 80 µm and a metal-containing thin layer (14) adjoining the polymeric layer (13) and having a thickness of 5 nm to 30 nm.

IPC 8 full level  
**E06B 3/663** (2006.01)

CPC (source: EP KR RU US)  
**E06B 3/66314** (2013.01 - RU US); **E06B 3/66319** (2013.01 - EP KR RU US); **E06B 3/66333** (2013.01 - RU US); **E06B 3/66342** (2013.01 - KR); **E06B 3/66352** (2013.01 - RU US); **E06B 3/66342** (2013.01 - EP US); **E06B 3/67326** (2013.01 - US); **E06B 2003/66338** (2013.01 - RU US); **E06B 2003/6638** (2013.01 - EP KR US)

Citation (opposition)  
Opponent : HELIMA GmbH  
• WO 2013104507 A1 20130718 - SAINT GOBAIN [FR]  
• JP 2008019131 A 20080131 - ASAHI GLASS CO LTD  
• EP 2218862 A2 20100818 - THERMOSEAL GROUP LTD [GB]  
• EP 0852280 A1 19980708 - SAINT GOBAIN VITRAGE SUISSE AG [CH]  
• DE 19543148 A1 19970522 - FEWA GLASTECHNIK GMBH [DE]  
• WO 2009142825 A1 20091126 - AVERY DENNISON CORP [US], et al  
• EP 0154428 A2 19850911 - CAMVAC HOLDINGS LTD [GB]  
• DE 102004028756 A1 20051229 - WIPAK WALSRÖDE GMBH & CO KG [DE]  
• EP 0430889 A2 19910605 - GLAS TROESCH AG ST GALLEN [CH]  
• DE 19807454 A1 19990826 - ENSINGER [DE]  
• "Vakuumdämmung im Bauwesen, Vorlesungsumdruck, Block IV - Werkstoffe", July 2010 (2010-07-01), pages IV-1 - IV-33, XP055605402  
• SIMMLER, H. ET AL.: "Vacuum insulation panels for building application basic properties, aging mechanisms and service life", ENERGY AND BUILDINGS, vol. 37, 2005, pages 1122 - 1131, XP027756798

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)  
**WO 2016046081 A1 20160331**; AU 2015321001 A1 20170406; AU 2015321001 B2 20181018; BR 112017003684 A2 20171205; BR 112017003684 B1 20220405; CA 2958613 A1 20160331; CA 2958613 C 20190507; CN 106715819 A 20170524; CN 106715819 B 20190813; DK 3198101 T3 20181203; EP 3198101 A1 20170802; EP 3198101 B1 20180815; EP 3421709 A1 20190102; EP 3421709 B1 20200129; EP 3421709 B2 20221130; JP 2017534779 A 20171124; JP 6479172 B2 20190306; KR 102056036 B1 20191213; KR 20170047298 A 20170504; KR 20190057430 A 20190528; MX 2017003876 A 20170619; NZ 730418 A 20210430; PL 3198101 T3 20190131; RU 2643977 C1 20180206; US 10626663 B2 20200421; US 2017298680 A1 20171019

DOCDB simple family (application)  
**EP 2015071452 W 20150918**; AU 2015321001 A 20150918; BR 112017003684 A 20150918; CA 2958613 A 20150918; CN 201580051725 A 20150918; DK 15771064 T 20150918; EP 15771064 A 20150918; EP 18188188 A 20150918; JP 2017516448 A 20150918; KR 20177007811 A 20150918; KR 20197014244 A 20150918; MX 2017003876 A 20150918; NZ 73041815 A 20150918; PL 15771064 T 20150918; RU 2017113767 A 20150918; US 201515506229 A 20150918