

Title (en)

Structural insulating joint of bottom door leaf and door sill connection

Title (de)

Strukturelles isolierendes Gelenk des unteren Türblatts und der Türschwellenverbindung

Title (fr)

Joint d'isolation structurelle de fond ouvrant et connexion de seuil de porte

Publication

**EP 2631406 A3 20140122 (EN)**

Application

**EP 13460011 A 20130220**

Priority

PL 39820612 A 20120222

Abstract (en)

[origin: EP2631406A2] The subject of the invention is the insulating joint of bottom door leaf and door sill connection, the role of which is to ensure high thermal insulation level and wind and rain tightness of the bottom leaf door and the door sill connection. The insulating joint of bottom door leaf ( 1 ) and door sill ( 25 ) connection is comprised of a door leaf ( 1 ) made up of a shaped, dimensional, compound profile ( 2 ), the top part of which holds the glazed panel (3) secured with a thermal insulating insert ( 4 ) at the bottom and sealed on one side of the panel with an external pane gasket and with an internal pane gasket ( 6 ) and a glazing strip on the other side ( 7 ). The bottom part of the shaped dimensional compound profile (2) is divided into three enclosed chambers (8), (9), ( 10 ), the middle of which (9) has a rectangle outline and trapezoid sockets ( 11 ), ( 11' ) used for the fixed foundation of the trapezoid endings ( 59 ), ( 59' ) of the profile spacers ( 12 ), ( 12' ). The middle part of which contains trapezoid notches ( 13 ), (13') for separate foundation of the trapezoid ends (14), ( 14' ) of the thermal barrier ( 15 ). The outer part ( 16 ) of the profile spacer ( 12' ) has two rhombus-sectioned notches ( 17 ) and ( 17' ) for the separate foundation of the trapezoid protrusions ( 18 ), and ( 18' ) of the upper sill gasket ( 19 ), equipped with a deformable chamber ( 20 ). The closed deformable chamber ( 20 ) adjoins the bottom sill gasket ( 24 ) of the sill ( 25 ) separately connected to the mounting profile ( 26 ) covered with insulating foil ( 27 ), the profile trapezoid protrusions of which ( 28 ), ( 28' ) are placed in the T-shaped sockets ( 29 ), ( 29' ) of the ( 26 ) mounting profile which is equipped in the lower part with a T-sectioned socket ( 30 ) for the ( 31 ) anchor mounted separately in the ( 32 ) base. The ( 25 ) sill is divided into shaped chambers ( 33 ), ( 34 ), ( 35 ), while the chamber ( 33 ) equipped with trapezoid sockets ( 36 ), ( 37 ) is a basis for the trapezoid protrusions ( 38 ), ( 39 ) of the ( 40 ), ( 41 ) spacers between which a thermal barrier ( 42 ) has been placed, while in the chamber ( 34 ) located over the chamber ( 35 ) a cover ( 43 ) with a corrugated internal surface ( 44 ) is separately founded and equipped with a groove ( 45 ) for the ( 46 ) ending of the upper chamber ( 34 ).

IPC 8 full level

**E06B 1/70** (2006.01); **E06B 3/263** (2006.01)

CPC (source: EP)

**E06B 1/70** (2013.01); **E06B 2001/707** (2013.01); **E06B 2003/26327** (2013.01); **E06B 2003/26329** (2013.01)

Citation (search report)

- [A] DE 29618101 U1 19970123 - BROECKELMANN ALUMINIUM F W [DE]
- [A] DE 202010016469 U1 20110217 - FRANZ HESEDENZ GMBH [DE]
- [A] DE 29900650 U1 19990422 - TKI TECH KONSTRUKTIVE INTERESS [DE]
- [A] DE 202010007986 U1 20101118 - VEKA AG [DE]
- [A] DE 7925035 U1 19800207
- [A] FR 1552129 A 19690103
- [A] DE 102008063057 A1 20100624 - HEUCHEMER KLAUS [DE]
- [A] DE 4434095 A1 19950504 - SCHWEIZER AG E [CH]
- [A] DE 19530349 C1 19961024 - EKONAL BAUSYSTEME GMBH & CO KG [DE]

Cited by

CN107956372A; CN105971449A; CN105971450A; CN106223786A; US11174673B2

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)

**EP 2631406 A2 20130828**; **EP 2631406 A3 20140122**; **EP 2631406 B1 20150909**; PL 229057 B1 20180629; PL 2631406 T3 20160229; PL 398206 A1 20130902

DOCDB simple family (application)

**EP 13460011 A 20130220**; PL 13460011 T 20130220; PL 39820612 A 20120222