

(19)



(11)

EP 1 231 330 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:
26.09.2007 Bulletin 2007/39

(51) Int Cl.:
E04B 2/96 (2006.01)

(21) Application number: **02075478.4**

(22) Date of filing: **06.02.2002**

(54) **Curtain wall, and method for making a curtain wall.**

Fassadenwand und Verfahren zu deren Herstellung

Mur-rideau et sa méthode de fabrication

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**

(30) Priority: **06.02.2001 NL 1017289**

(43) Date of publication of application:
14.08.2002 Bulletin 2002/33

(73) Proprietor: **Reynolds Architectuursystemen
3846 BX Harderwijk (NL)**

(72) Inventor: **Van Herwijnen, Johannis
8071 KK Nunspeet (NL)**

(74) Representative: **Prins, Adrianus Willem et al
Vereenigde,
P.O.Box 87930
2508 DH Den Haag (NL)**

(56) References cited:
EP-A- 1 004 718 DE-U- 29 606 125

EP 1 231 330 B1

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

[0001] The invention relates to a curtain wall.

[0002] The known curtain walls are provided with sheets of glass which are clamped between clamping means of supporting profiles. Generally, the supporting profiles comprise vertical and horizontal members which are preferably wholly or partly manufactured from metal. The weight of the sheets of glass is often carried by these supporting profiles, for instance in that each sheet of glass rests, by one extremity, on a supporting element of a supporting profile designed as a horizontal member. As a rule, the clamping between the clamping means only serves for holding the sheets of glass in a fixed position at least in a direction transverse to the facade. The clamping force applied by the supporting profiles with the clamping means on the sheets of glass can, in that case, be relatively low, such that the sheets of glass cannot become damaged by the clamping force.

[0003] Between the clamping means and the sheets of glass, flexible sealing profiles are provided. These sealing profiles are intended to provide for a leak and wind-proof connection between clamping means and the sheets of glass. Therefore, with the aid of these sealing profiles, for instance rainwater is prevented from penetrating the curtain wall between the clamping means and the sheets of glass, which could seriously damage the facade and the building provided with the facade. Each of the sealing profiles can be manufactured from, for instance, rubber, elastic plastic or such material.

[0004] In practice, the sealing profiles have an additional function, i.e. providing for thermal insulation of the curtain wall. The sealing profiles form a barrier against heat transfer between the clamping means and the supporting profiles, in particular transport through conduction of heat between these parts of the curtain wall. Such insulation is desired for preventing substantial heat flows between surroundings of a building and an inner space of a building bounded by the curtain wall, via the curtain wall.

[0005] A drawback of the known facade is that the sealing profiles provide insufficient thermal insulation. As a result, there is an undesirably large heat flow between inner and outside spaces separated from each other by the facade. As a result, the costs for keeping the temperature of the inner space substantially constant given a variable outside temperature are relatively high. Moreover, for keeping the inside temperature constant, unnecessarily much energy will be used, which is disadvantageous from an environmental point of view.

[0006] The German Utility Model DE 29606125 U1 describes a curtain wall, provided with a membrane of, preferably, butyl, which serves as a vapor block, arranged between a pane and a profile. However, the insulation and sealing performance is not optimal.

[0007] The European patent application EP 1004718 A2 describes a facade wherein a sealing foil tape is provided between panes and sealing profiles of a framework.

On a pane-side, the sealing foil tape is provided with a sealing mass comprising a number of self-adhesive sealing strips of, for instance, butyl. These sealing strips have been glued between the panes and the sealing profiles of the framework to obtain a water vapor tight connection. The sealing strips are carried by a carrier foil consisting of at least one plastic foil onto which an aluminum foil has been applied.

[0008] The invention contemplates eliminating the drawbacks of the known curtain wall while maintaining its advantages. In particular, the invention contemplates a curtain wall, wherein a heat flow between the sheets of glass and the clamping means is properly prevented. To that end, the curtain wall is characterized by the features of claim 1.

[0009] The heat transfer inhibiting layer provided between at least one of the sheets of glass and a sealing profile engaging the at least one sheet of glass inhibits heat transfer between these parts of the curtain wall. Surprisingly, it has been found that this heat transfer inhibiting layer provides for a substantial improvement of the heat insulation. Applicant has recognized that between the sheet of glass and the clamping means of the supporting profiles of the known curtain walls, surprisingly, substantial advantages are to be achieved by a decrease of the heat flows. This heat transfer inhibiting layer can be fitted loosely between the sealing profile and the sheet of glass, or on one of these curtain wall parts. Further, the heat transfer inhibiting layer can abut well against the sheet of glass and the sealing profile, so that the substantially fluid tight connection formed by the sealing profile between the clamping means and the sheet of glass is not broken by this layer. This heat transport inhibiting layer, for that matter, can also be applied to the glass, for instance as (adhesive) tape, prior to the placement of the clamping means.

[0010] A highly advantageous embodiment of the invention is provided by the features of claim 2.

[0011] As the heat transfer inhibiting layer comprises a foil, in particular aluminum foil, it can be made of relatively inexpensive design and be applied relatively simply between the at least one sheet of glass and the sealing profile or clamping profile engaging the at least one sheet of glass. The layer can, for instance, be designed in elongated foil strips which can be simply placed at the desired position during assembly of the facade. Furthermore, the layer can be manufactured from one piece of foil, so that possible leakages as a result of interruptions in the layer are avoided.

[0012] A preferred embodiment of the invention is characterized by the features of claim 3.

[0013] The at least one heat radiation reflecting side of the heat transfer inhibiting layer faces the at least one sheet of glass. Thus, heat transfer as a result of radiation is prevented, at least with heat radiation incident on the heat radiation reflecting side. This radiation can come from curtain wall parts situated at an opposite side of the sheet of glass, such as clamping means, one or more

sealing profiles, a supporting profile and/or a heat radiating source situated outside the curtain wall. The heat radiated by these curtain wall parts and/or radiation source is reflected by the heat radiation reflecting side mentioned, which can provide for a particular improvement of the heat insulation.

[0014] An additional advantage is that the heat inhibiting layer can prevent the part of the sealing profile along which the layer extends from becoming excessively heated as a result of incident heat radiation. The sealing profile could become damaged through overheating, which could cause leakage and/or could damage the facade construction. Such an excessive heating could, for instance, result from incident radiation of sunlight or another source of heat located relatively close to the curtain wall.

[0015] A further elaboration of the invention is characterized by the features of claim 4.

[0016] As the heat transfer inhibiting layer extends substantially along an entire side of the sealing profile engaging the at least one sheet of glass, this side is relatively well insulated against heat loss. As a result, the advantages offered by the heat transfer inhibiting layer can be utilized as much as possible.

[0017] The invention also provides a method for manufacturing a curtain wall, which method is characterized by the features of claim 10.

[0018] With this method, a curtain wall can be manufactured in a simple manner, the facade being provided with at least one heat transfer inhibiting layer, which offers the above-mentioned advantages.

[0019] Further elaborations of the invention are described in the subclaims.

[0020] The invention will be described with reference to an exemplary embodiment shown in the drawing. In the drawing:

Fig. 1 shows a cross sectional view of an exemplary embodiment of the invention.

[0021] The exemplary embodiment represented in the drawing comprises a part of a curtain wall, provided with two pairs of sheets of glass 1 and a supporting profile 2. Each pair of sheets of glass 1 forms a heat insulating double-glass assembly, which is advantageous for the heat insulating effect of the curtain wall. Additionally, it is noted that comparable advantages can be achieved when using closed panels such as sandwich panels in a curtain wall according to the invention. Between the sheets of glass 1 of each pair, a spacer 15 is disposed. The supporting profile 2 represented is designed as a horizontal member supporting two superjacent sheets of glass 1 with a supporting element 11. The exemplary embodiment separates an outside space A from an inner space B, while sheets of glass extending along the outside space A and inner space B, respectively, have reference numerals 1a, 1b respectively.

[0022] The supporting profile 2 comprises a supporting

profile clamping flange 10 on which, at right angles, a fastening flange 9 extends, along extremities of the sheets of glass 1. The fastening flange 9 is located here at a distance from the sheets of glass 1, so that heat insulating intermediate spaces 14 are situated between the flange 9 and the sheets of glass 1. At an extremity of the fastening flange 9 remote from the supporting profile clamping flange 10, a clamping profile 5 is detachably attached by means of bolts 8, one of which is represented in the cross section. The sheets of glass 1 are clamped between, on the one hand, the clamping profile 5 and, on the other hand, the supporting profile clamping flange 10. Further, on the clamping profile 5, a covering profile 13 is fitted, which serves as a finish of the curtain wall.

[0023] Between, on the one hand, the clamping profile 5, the supporting profile clamping flange 10, respectively, and, on the other hand, the sheets of glass 1a, 1b, flexible sealing profiles 3, 12, respectively, are fitted. These sealing profiles 3, 12 are arranged to connect the clamping profile 5 and the clamping flange 10, respectively, to the sheets of glass 1a and 1b, respectively, in a substantially fluid-tight manner. The clamping force exerted by the clamping profile 5 and supporting profile clamping flange 10, is exerted on the sheets of glass 1 via these sealing profiles 3, 12. The sealing profiles 3, 12 can be manufactured from, for instance, rubber, elastic plastic or the like. The curtain wall construction shown, comprising the supporting profile 2, the clamping profile 5 and the sealing profiles 3, 12, can be assembled relatively easily. As the clamping profile 5 is detachably connected to the supporting profile 2, disassembly can also be performed in a simple manner, for instance for replacing a sheet of glass 1.

[0024] The sealing profile 3 has a sealing profile body 6 arranged between the extremity of the fastening flange 9 and the clamping profile 5. The sealing profile body 6 is provided with two sealing profile wings 7 extending along that body 6. The wings 7 extend from the body 6 to the sheets of glass 1a and engage the sheets of glass. Along a side of the sealing profile 3 proximal to the supporting profile clamping flange 10, a heat transfer inhibiting foil 4 is applied. Here, this foil 4 extends along substantially the entire sides of the sealing profile wings 7 proximal to the sheets of glass 1a and the profile 2. The foil 4 provides for a surprising improvement of the heat insulation between the sheets of glass 1a and the clamping profile 5. As a result, heat flows between the outside space A and the inner space B, proceeding, for instance, via the supporting profile 2 and the clamping profile 3, can be considerably reduced. Such heat flows could, for instance, proceed via the sheets of glass 1, the support element 11 and/or the intermediate spaces 14, as by way of heat convection, heat conduction and/or heat radiation. Preferably, the foil 4 is provided with a heat radiation reflecting side, which reflecting side faces the sheets of glass 1a. As a result, the foil can reflect incident heat radiation emitted, for instance, by the supporting profile 10, the opposite sealing profiles 12, the sheets of glass

1b and/or a heat radiation source located in the inner space B, which increases the insulating effect of the foil 4 considerably. The foil 4 can comprise, for instance, aluminum foil, which is relatively inexpensive and can be applied between the sealing profile 3 and the sheets of glass 1a in a simple manner. Also, a reflecting varnish can be provided.

[0025] The exemplary embodiment can be constructed very simply by applying the heat transfer inhibiting layer 4 along the sealing profile 3 during manufacture of the curtain wall.

[0026] In the exemplary embodiment shown, the foil 4 extends along the entire side of the body 6 proximal to the sheets of glass 1, such that it spans the space 14 between the double sheets of glass 1a, 1b; 1a, 1b. As a result, an even better sealing of this space is obtained so that the insulating effect thereof is even more enhanced. Furthermore, thus, the insulating effect towards the clamping part 9 is further enhanced.

[0027] It is self-evident that the invention is not limited to the exemplary embodiment described. Various modifications are possible within the framework of the invention outlined by the claims.

[0028] The heat transfer inhibiting layer 4 can, for instance, comprise one foil, a heat transfer inhibiting layer of varnish or a combination of such or other materials. In case the layer 4 comprises foil, the foil can be connected to the sealing profile 3 and/or the sheets of glass 1a, with, for instance, a glue connection. Preferably, the foil is arranged loosely between the sealing profile 3 and the sheets of glass.

[0029] The heat transfer inhibiting layer 14 can further be provided with a heat radiation reflecting side in different manners, for instance in that the layer comprises a foil layer with an inherently reflecting side. Also, to that end, the layer can for instance comprise a heat radiation reflecting, mirroring varnish layer.

[0030] Additionally, the invention is not limited to the use of horizontal members, but can also be used in combination with other supporting profiles such as vertical members or diagonally positioned profiles. The profiles can have any desired, suitable form, for instance as known from the state of the art. For instance, they can be manufactured wholly or partly from plastic, or be covered therewith.

[0031] Further, the heat transfer inhibiting layer 4 can be applied along the sealing profile 7 situated adjacent an outside space A and/or a sealing profile 12 situated at the inner space B. The choice of placement of the heat transfer inhibiting layer can, for instance, depend on the wish to keep the inner space B cool or, conversely, warm, in relation to the outside space A. When, for instance, in the outside space A, usually a relatively warm climate prevails, it can, conversely, be advantageous to apply heat transfer inhibiting layers 4 between the sheets of glass 1b and the sealing profiles 12 extending along the inner space B. In that case, the layers 4 are to stop heat coming from the outside space A for the purpose of keep-

ing the inner space B cool.

[0032] Further, between more than one sealing profile 3, 12 of the curtain wall on the one hand and the sheets of glass 1 or panels on the other hand, heat transfer inhibiting layers 4 can be applied. For instance, the entire curtain wall can be provided with heat transfer inhibiting layers 4. The fastening flange 9 can be wholly or partly designed in plastic, for instance through an intermediate profile between the profile part 10 and the supporting profile 2 and body 6. As a result, the heat insulating effect is even more enhanced.

Claims

1. A curtain wall, provided with sheets of glass (1) and/or panels and supporting profiles (2), in particular metal, wooden or plastic horizontal and vertical members, wherein the supporting profiles (2) are provided with clamping means (5, 10) between which the sheets of glass (1) and/or panels are clamped, wherein, between the sheets of glass and the clamping means flexible sealing profiles (3) are fitted, arranged for connecting the clamping means (5, 10) to the sheets of glass (1) and/or panels in a substantially fluid-tight manner, wherein, between at least two of the sheets of glass (1) and/or panels and a sealing profile (3) engaging the at least two sheets of glass and/or panels, a heat transfer inhibiting layer (4) is applied, **characterized in that** at least one of the sealing profiles (3) comprises a sealing profile body (6) and at least two sealing profile wings (7) extending along said body (6), wherein the sealing profile (3) is disposed between the clamping means (5, 10) and two superjacent sheets of glass (1) and/or panels, such, that a clamping force of the clamping means (5, 10) is transferred via the respective sealing profile wing (7) to the respective sheet of glass (1) or the panel, wherein the sealing profile (3) spans over a space (14) between the superjacent sheets of glass (1) and/or panels, wherein the heat transfer inhibiting layer (4) extends along a side of the sealing profile wings (7) facing the sheets of glass (1) and/or panels.
2. A curtain wall according to claim 1, wherein the heat transfer inhibiting layer (4) comprises a foil, in particular aluminium foil.
3. A curtain wall according to any one of the preceding claims, wherein the heat transfer inhibiting layer (4) is provided with at least one heat radiation reflecting side, which reflecting side faces the at least one sheet of glass (1) or the at least one panel.
4. A curtain wall according to any one of the preceding claims, wherein the heat transfer inhibiting layer (4) extends substantially along an entire side side of the

sealing profile (3) engaging the at least one sheet of glass (1) or panel.

5. A curtain wall according to any one of the preceding claims, wherein the clamping means comprise clamping profiles (5) which, by means of fastening means (8) are detachably connected to fastening parts (9) of the supporting profiles (2), wherein, further, the clamping means comprise supporting profile clamping flanges (10) of the supporting profiles (2), wherein the sheets of glass (1) and/or panels are clamped between the clamping profiles (5) on the one hand, and the supporting profile clamping flanges (10) on the other hand.
6. A curtain wall according to claim 5, wherein the fastening parts (9) of the supporting profiles (2) extend along extremities, preferably at a distance, of the sheets of glass (1) and/or panels towards the clamping profiles (5), wherein a sealing profile (3) engaging the at least one sheet of glass (1) and the at least one panel extends partly between a fastening part (9) and a clamping profile (5), wherein the heat transfer inhibiting layer (4) extends along a side of the sealing profile (3), which side faces an opposite supporting profile clamping flange (10).
7. A curtain wall according to any one of the preceding claims, wherein the facade is provided with at least two parallel positioned sheets of glass (1) and/or panels.
8. A curtain wall according to any one of the preceding claims, wherein at least two sheets of glass (1a, 1a; 1b, 1b) and/or panels, positioned substantially in alignment with each other, are clamped between clamping means (5, 10) of one supporting profile (2), wherein between these at least two sheets of glass (1a, 1b; 1a, 1b) and/or panels and at least one sealing profile (3) engaging the at least two sheets of glass and/or the panels, a heat transfer inhibiting layer (4) is applied.
9. A method for manufacturing a curtain wall, wherein at least two sheets of glass (1) and/or panels are placed between a flexible sealing profile (3) and a supporting profile (2), wherein between the sheets of glass (1) and/or panels and the sealing profile (3) a heat transfer inhibiting layer (4) is included, wherein, subsequently, the facade is provided with clamping means (5) which are connected with fastening means (8) to the supporting profile (2) such, that the sheets of glass (1) and/or panels are clamped between the supporting profile (2) and the sealing profile (3), **characterized in that** the sealing profile (3) is used comprising a sealing profile body (6) and at least two sealing profile wings (7) extending along said body (6), wherein the sealing profile (3) is dis-

posed between the clamping means (5, 10) and the sheets of glass (1) and/or panel, spanning over a space (14) between two superjacent sheets of glass (1) and/or panels, such, that a clamping force of the clamping means (5, 10) is transferred via the respective sealing profile wing (7) to the respective sheet of glass (1) and/or panel.

10 Patentansprüche

1. Vorhangwand, die mit Glasscheiben (1) und/oder Platten und Tragprofilen (2), insbesondere horizontalen und vertikalen metallischen, hölzernen oder Kunststoffelementen, ausgestattet ist, wobei die Tragprofile (2) mit Einspannmitteln (5, 10) ausgestattet sind, zwischen denen die Glasscheiben (1) und/oder Platten eingespannt sind, wobei zwischen den Glasscheiben und den Einspannmitteln flexible Dichtungsprofile (3) vorgesehen sind, die zum Verbinden der Einspannmittel (5, 10) mit den Glasscheiben (1) und/oder Platten in einer im Wesentlichen fluiddichten Weise angeordnet sind, wobei zwischen mindestens zwei der Glasscheiben (1) und/oder Platten und einem Dichtungsprofil (3), das an den mindestens zwei Glasscheiben und/oder Platten angreift, eine Wärmetransport behindernde Schicht (4) vorgesehen ist, **dadurch gekennzeichnet, dass** mindestens eines der Dichtungsprofile (3) einen Dichtungsprofilkörper (6) und mindestens zwei Dichtungsprofilflügel (7) aufweist, die entlang des Körpers (6) verlaufen, wobei das Dichtungsprofil (3) zwischen den Einspannmitteln (5, 10) und zwei darüber liegenden Glasscheiben (1) und/oder Platten angeordnet ist, so dass eine Einspannkraft der Einspannmittel (5, 10) über den entsprechenden Dichtungsprofilflügel (7) auf die entsprechende Glasscheibe (1) oder Platte übertragen wird, wobei das Dichtungsprofil (3) einen Zwischenraum (14) zwischen den darüber liegenden Glasscheiben (1) und/oder Platten überbrückt, wobei sich die Wärmetransport behindernde Schicht (4) entlang einer Seite der Dichtungsprofilflügel (7) erstreckt, die den Glasscheiben (1) und/oder Platten zugewandt ist.
2. Vorhangwand nach Anspruch 1, bei der die Wärmetransport behindernde Schicht (4) eine Folie aufweist, insbesondere Aluminiumfolie.
3. Vorhangwand nach einem der vorhergehenden Ansprüche, bei der die Wärmetransport behindernde Schicht (4) mit mindestens einer Wärmestrahlung reflektierenden Seite ausgestattet ist, die der mindestens einen Glasscheibe (1) oder der mindestens einen Platte zugewandt ist.
4. Vorhangwand nach einem der vorhergehenden Ansprüche, bei der die Wärmetransport behindernde

Schicht (4) im Wesentlichen entlang einer gesamten Seite des Dichtungsprofils (3) verläuft, das an der mindestens einen Glasscheibe (1) oder Platte angreift.

5. Vorhangwand nach einem der vorhergehenden Ansprüche, bei der die Einspannmittel Einspannprofile (5) aufweisen, die mit Hilfe von Befestigungsmitteln (8) lösbar mit Befestigungsteilen (9) der Tragprofile (2) verbunden sind, wobei ferner die Einspannmittel Tragprofil-Einspannflansche (10) der Tragprofile (2) aufweisen, wobei die Glasscheiben (1) und/oder Platten zwischen den Einspannprofilen (5) auf der einen Seite und den Tragprofil-Einspannflanschen (10) auf der anderen Seite eingespannt sind.

6. Vorhangwand nach Anspruch 5, bei der die Befestigungsteile (9) der Tragprofile (2) entlang äußerer Enden, bevorzugt in einer Entfernung, von den Glasscheiben (1) und/oder Platten in Richtung auf die Einspannprofile (5) verlaufen, wobei ein Dichtungsprofil (3), das an der mindestens einen Glasscheibe (1) und der mindestens einen Platte angreift, teilweise zwischen einem Befestigungsteil (9) und einem Einspannprofil (5) verläuft, wobei die Wärmetransport behindernde Schicht (4) entlang einer Seite des Dichtungsprofils (3) verläuft, die einem gegenüberliegenden Tragprofil-Einspannflansch (10) zugewandt ist.

7. Vorhangwand nach einem der vorhergehenden Ansprüche, bei der die Fassade mit mindestens zwei parallel angeordneten Glasscheiben (1) und/oder Platten ausgestattet ist.

8. Vorhangwand nach einem der vorhergehenden Ansprüche, bei der mindestens zwei Glasscheiben (1a, 1a; 1b, 1b) und/oder Platten, die im Wesentlichen in Ausrichtung zueinander angeordnet sind, zwischen Einspannmitteln (5, 10) eines Tragprofils (2) eingespannt sind, wobei zwischen diesen mindestens zwei Glasscheiben (1a, 1b; 1a, 1b) und/oder Platten und mindestens einem Dichtungsprofil (3), das an den mindestens zwei Glasscheiben und/oder den Platten angreift, eine Wärmetransport behindernde Schicht (4) vorgesehen ist.

9. Verfahren zur Herstellung einer Vorhangwand, bei dem mindestens zwei Glasscheiben (1) und/oder Platten zwischen einem flexiblen Dichtungsprofil (3) und einem Tragprofil (2) angeordnet werden, wobei zwischen den Glasscheiben (1) und/oder Platten und dem Dichtungsprofil (3) eine Wärmetransport behindernde Schicht (4) aufgenommen wird, wobei anschließend die Fassade mit Einspannmitteln (5) versehen wird, die mit Befestigungsmitteln mit dem Tragprofil (2) verbunden werden, so dass die Glasscheiben (1) und/oder Platten zwischen dem Trag-

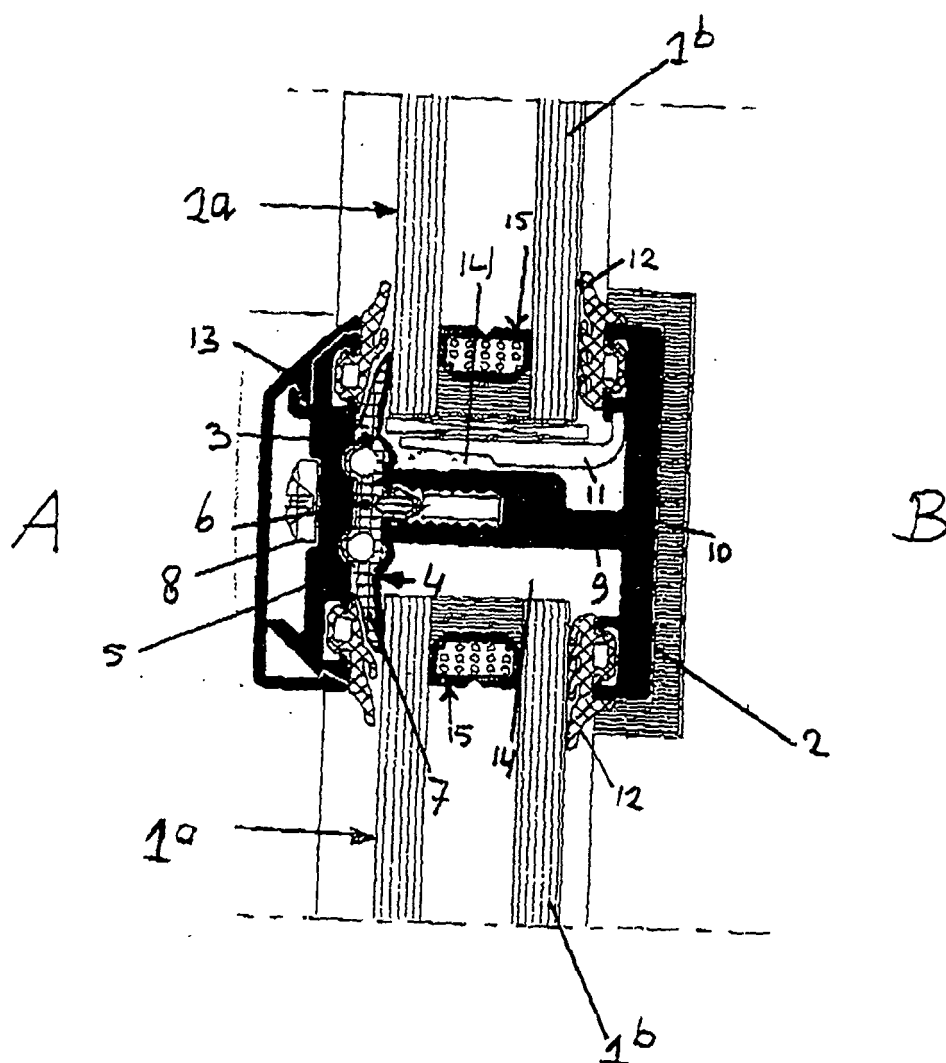
profil (2) und dem Dichtungsprofil (3) eingespannt werden, **dadurch gekennzeichnet, dass** das Dichtungsprofil (3) verwendet wird, das einen Dichtungsprofilkörper (6) und mindestens zwei Dichtungsprofilflügel (7) aufweist, die entlang des Körpers (6) verlaufen, wobei das Dichtungsprofil (3) zwischen den Einspannmitteln (5, 10) und den Glasscheiben (1) und/oder Platten angeordnet ist und einen Zwischenraum (14) zwischen zwei darüber liegenden Glasscheiben (1) und/oder-Platten überbrückt, so dass eine Einspannkraft der Einspannmittel (5, 10) über den jeweiligen Dichtungsprofilflügel (7) auf die jeweilige Glasscheibe (1) und/oder Platte übertragen wird.

Revendications

1. Mur-écran, pourvu de feuilles de verre (1) et/ou de panneaux et de profilés de support (2), en particulier des éléments horizontaux et verticaux en métal, en bois ou en plastique, dans lequel les profilés de support (2) sont pourvus de moyens de serrage (5, 10) entre lesquels les feuilles de verre (1) et/ou les panneaux sont serrés, dans lequel, entre les feuilles de verre et les moyens de serrage des profilés de fermeture étanche flexibles (3) sont montés, agencés pour connecter les moyens de serrage (5, 10) sur les feuilles de verre (1) et/ou les panneaux d'une manière sensiblement étanche aux fluides, dans lequel, entre au moins deux des feuilles de verre (1) et/ou panneaux et un profilé de fermeture étanche (3) venant en prise avec les au moins deux feuilles de verre et/ou panneaux, une couche empêchant le transfert de chaleur (4) est appliquée, **caractérisé en ce qu'**au moins l'un des profilés de fermeture étanche (3) comprend un corps de profilé de fermeture étanche (6) et au moins deux ailes de profilé de fermeture étanche (7) s'étendant le long dudit corps (6), dans lequel le profilé de fermeture étanche (8) est disposé entre les moyens de serrage (5, 10) et deux feuilles de verre (1) et/ou panneaux superposés, de telle manière qu'une force de serrage des moyens de serrage (5, 10) est transférée via l'aile de profilé de fermeture étanche (7) respective à la feuille de verre (1) ou le panneau respectif, dans lequel le profilé de fermeture étanche (3) s'étend sur un espace (14) entre les feuilles de verre (1) et/ou panneaux superposés, dans lequel la couche empêchant le transfert de chaleur (4) s'étend le long d'un côté des ailes de profilé de fermeture étanche (7) dirigé vers les feuilles de verre (1) et/ou panneaux.
2. Mur-écran selon la revendication 1, dans lequel la couche empêchant le transfert de chaleur (4) comprend une ailette, en particulier une ailette en aluminium.

3. Mur-écran selon l'une quelconque des revendications précédentes, dans lequel la couche empêchant le transfert de chaleur (4) est pourvue d'au moins un côté réfléchissant le rayonnement thermique, lesquels côté réfléchissants sont dirigés vers l'au moins une feuille de verre (1) ou l'au moins un panneau. 5
4. Mur-écran selon l'une quelconque des revendications précédentes, dans lequel la couche empêchant le transfert de chaleur (4) s'étend sensiblement le long d'un côté entier du profilé de fermeture étanche (3) venant en prise avec l'au moins une feuille de verre (1) ou l'au moins un panneau. 10
5. Mur-écran selon l'une quelconque des revendications précédentes, dans lequel les moyens de serrage comprennent des profilés de serrage (5) qui, au moyen de moyens de fixation (8) sont connectés amoviblement aux parties de fixation (9) des profilés de support (2), dans lequel, en outre, les moyens de serrage comprennent des rebords de serrage de profilé de support (10) des profilés de support (2), dans lequel les feuilles de verre (1) et/ou panneaux sont serrés entre les profilés de serrage (5) d'une part, et les rebords de serrage de profilé de support (10) d'autre part. 15 20 25
6. Mur-écran selon la revendication 5, dans lequel les parties de fixation (9) des profilés de support (2) s'étendent le long d'extrémités, de préférence à une distance, des feuilles de verre (1) et/ou panneaux vers les profilés de serrage (5), dans lequel un profilé de fermeture étanche (3) venant en prise avec l'au moins une feuille de verre (1) et l'au moins un panneau s'étend en partie entre une partie de fixation (9) et un profilé de serrage (5), dans lequel la couche empêchant le transfert de chaleur (4) s'étend le long d'un côté du profilé de fermeture étanche (3), lequel côté fait face à un rebord de serrage de profilé de support (10) opposé. 30 35 40
7. Mur-écran selon l'une quelconque des revendications précédentes, dans lequel la façade est pourvue d'au moins deux feuilles de verre (1) et/ou panneaux positionnés en parallèle. 45
8. Mur-écran selon l'une quelconque des revendications précédentes, dans lequel au moins deux feuilles de verre (1a, 1a; 1b, 1b) et/ou panneaux, positionnés sensiblement alignés ensemble, sont serrés entre des moyens de serrage (5, 10) d'un profilé de support (2), dans lequel entre ces au moins deux feuilles de verre (1a, 1a; 1b, 1b) et/ou panneaux et au moins un profilé de fermeture étanche (3) venant en prise avec les au moins deux feuilles de verre et/ou les panneaux, une couche empêchant le transfert de chaleur (4) est appliquée. 50 55
9. Procédé de fabrication d'un mur-écran, dans lequel au moins deux feuilles de verre (1) et/ou panneaux sont placés entre un profilé de fermeture étanche (3) et un profilé de support (2), dans lequel entre les feuilles de verre (1) et/ou panneaux et le profilé de fermeture étanche (3) une couche empêchant le transfert de chaleur (4) est incluse, dans lequel, ensuite, la façade est pourvue de moyens de serrage (5) qui sont connectés avec des moyens de fixation (8) au profilé de support (2) de telle manière que les feuilles de verre (1) et/ou panneaux sont serrés entre le profilé de support (2) et le profilé de fermeture étanche (3), **caractérisé en ce que** le profilé de fermeture étanche (3) est utilisé comprenant un corps de profilé de fermeture étanche (6) et au moins deux ailes de profilé de fermeture étanche (7) s'étendant le long dudit corps (6), dans lequel le profilé de fermeture étanche (3) est disposé entre les moyens de serrage (5, 10) et les feuilles de verre (1) et/ou panneaux s'étendant sur un espace (14) entre les deux feuilles de verre (1) et/ou panneaux superposés, de telle manière qu'une force de serrage des moyens de serrage (5, 10) est transférée via l'aile de profilé de fermeture étanche (7) respective vers la feuille de verre (1) et/ou le panneau respectif.

FIGURE 1



REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- DE 29606125 U1 [0006]
- EP 1004718 A2 [0007]