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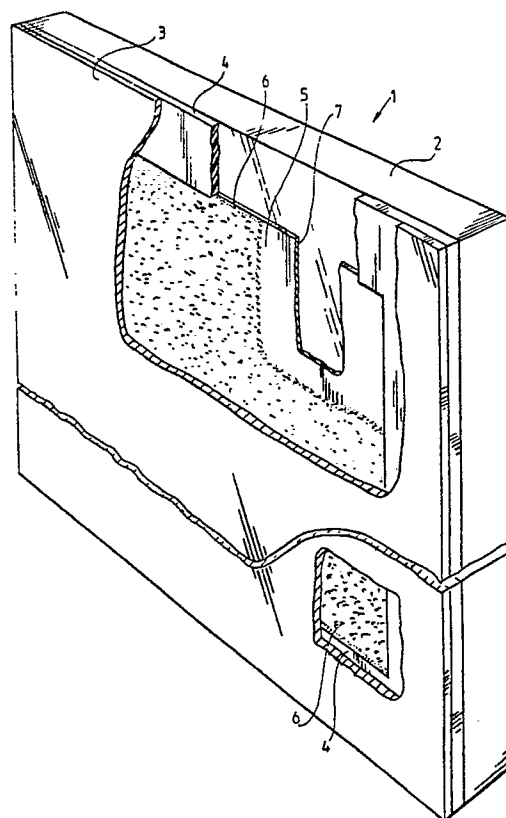
54 Spandrel panel.

57 The invention relates to a spandrel panel (1). The spandrel panel according to the invention comprises:

a transparent plate (2), for example of biased or hardened float glass with sun-reflecting properties,
 a foil (3), for example aluminium foil, arranged on one side of that plate,
 a layer of mastic (4) arranged on the edges of the plate (2) and forming a barrier with little permeability to water vapour and gases and also forming an adhesion between the plate and the foil,
 a water vapour and/or gas absorbing element (6) which can be embodied as a molecular sieve present in the space (5) enclosed by that plate (2), that foil (3) and that mastic edge (4), and
 a non-transparent covering layer (7) applied to the plate (2) and adjoining that space (5), for example of metal and/or metal oxide,
 wherein the water vapour and/or gas absorbing element (6) can be applied as powder spread such that a spread, local, direct contact can exist between the covering layer (7) and the foil (3).

Through this very simple construction it is possible to influence with great accuracy and, in the design phase, select a number of essential parameters. This relates to the transmission of visible light, the transmission of the total solar spectrum and the

so-called K-value which forms a measure of the heat resistance formed by the panel.



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SPANDREL PANEL

The invention relates to a spandrel panel. Such a panel can for example be used in utility building. Many architects wish to give buildings an appearance of being constructed entirely of reflecting glass. It is the desire therefore to give to the construction parts which are naturally non-transparent and to the parts which are transparent from inside, the windows, at least substantially the same reflecting appearance from the outside. The spandrel panels relate to the non-transparent panels in such a construction and are therefore so-called non-vision parts.

Such a spandrel panel is known from the American patent specification 4.233.796. This known panel comprises two plates which are held at a mutual distance by means of positioning means. The space between both plates, the cavity, is at least partially filled with a drying agent. In order to counter moisture penetration of the cavity as much as possible the peripheral edges thereof are covered with a moisture barrier.

The drawback of such a construction is that it is complicated and therefore can only be manufactured at a relatively high cost, while furthermore the weight per surface area unit is comparatively great.

A further drawback is that because of the nature of the construction of this known panel it is not simple to control the transmission and reflection properties to the required degree.

The invention now has for its object to embody a spandrel panel such that the above described limitations and problems of the state of the art do not occur. To that end the spandrel panel according to the invention comprises:

a transparent plate, for example of biased or hardened float glass with sun-reflecting properties, a foil arranged on one side of that plate, for example aluminium foil,

a layer of mastic arranged on the edges of the plate which forms a barrier with little permeability to water vapour and gases and which also forms an adhesion between the plate and the foil,

a water vapour and/or gas absorbing element present in a space enclosed by that plate, that foil and that mastic edge, which element can be embodied as molecular sieve, and

a non-transparent covering layer, for example of metal and/or metal oxide, arranged on the plate and adjoining that space,

wherein the water vapour and/or gas absorbing element can be arranged as powder spread such that a spread, local, direct contact can exist between the covering layer and the foil.

Through this very simple construction it is possible to influence with great accuracy and, in the

design phase, select a number of essential parameters. This relates to the transmission of visible light, the transmission of the total solar spectrum and the so-called K-value which forms a measure of the heat resistance formed by the panel.

The covering layer can in principle be of any known and suitable type whereby all possible techniques for applying the covering layer can be utilized. Depending on the desired reflecting colour, the covering layer can also be chosen with this in mind.

It is pointed out that according to the state of the art as specified above the cavity contains a drying agent. According to the invention use is preferably made of an agent which can bind not only water vapour but also any other gases which may be released. Use can be made of a micro-nized agent which is known as Zeolith and contains aluminium silicates. Such an agent is per se known but has to date not been used in the glass industry, also not for double glazing.

With respect to the choice of the various materials it is pointed out that the temperature at the location of the covering layer can rise to the order of between 110°C and 120°C.

The annexed figure shows a panel 1 according to the invention. This spandrel panel comprises a biased plate 2 of float glass, an aluminium foil 3 arranged on the left side with a thickness of roughly 50 µm, a layer of alcoxy silicon mastic 4 arranged on the edges of the plate 2, a layer of drying, gas absorbing Zeolith 6 applied in spread manner as powder and present in the space 5 enclosed by the plate 2, the foil 3 and the mastic edge 4, and a vapour deposited covering layer 7 applied to the plate 2 and adjoining the space 5.

Claims

A spandrel panel, comprising:

a transparent plate, for example of biased or hardened float glass with sun-reflecting properties,

a foil, for example aluminium foil, arranged on one side of that plate,

a layer of mastic arranged on the edges of said plate and forming a barrier with little permeability to water vapour and gases and also forming an adhesion between said plate and said foil,

a water vapour and/or gas absorbing element which can be embodied as a molecular sieve present in the space enclosed by that plate, that foil and that mastic edge, and

a non-transparent covering layer applied to said plate and adjoining that space, for example of

metal and/or metal oxide,
wherein said water vapour and/or gas absorbing
element can be applied as powder spread such
that a spread, local, direct contact can exist be-
tween said covering layer and said foil.

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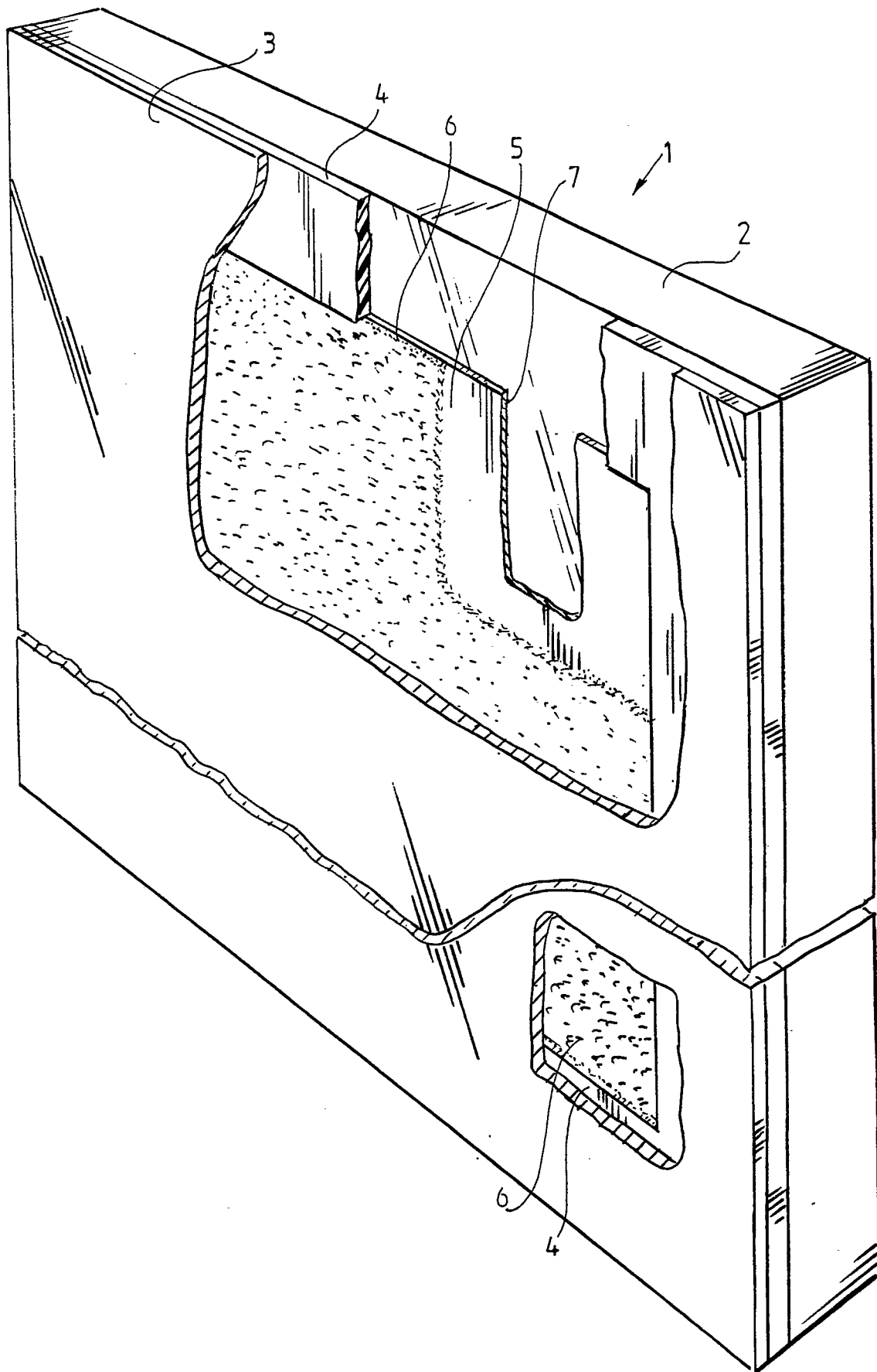
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-4 610 115 (THOMPSON) * Column 3, line 10 - column 4, line 15; column 5, lines 38-52; figures * ---	1	E 04 C 2/54
Y	DE-C-3 725 865 (LINZMEIER) * Column 2, lines 36-45; column 2, line 57 - column 3, line 23; figure 1 * ---	1	
D,Y	US-A-4 233 796 (MAZZONI) * Column 2, lines 14-27; column 2, line 47 - column 3, line 20; column 5, line 56 - column 6, line 39; figures * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			E 04 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 05-02-1990	Examiner VANDEVONDELE J.P.H.
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