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**Datasheet for the decision  
of 19 June 2018**

**Case Number:** T 1720/14 - 3.2.03

**Application Number:** 03010923.5

**Publication Number:** 1363069

**IPC:** F21V31/03, H05K5/02, H02K5/10

**Language of the proceedings:** EN

**Title of invention:**  
Ventilation member and vented housing using the same

**Patent Proprietor:**  
NITTO DENKO CORPORATION

**Opponent:**  
W. L. Gore & Associates GmbH

**Headword:**

**Relevant legal provisions:**  
EPC Art. 54, 56

**Keyword:**  
Novelty - (yes)  
Inventive step - non-obvious modification

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
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Case Number: T 1720/14 - 3.2.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.03**  
**of 19 June 2018**

**Appellant:** W. L. Gore & Associates GmbH  
(Opponent) Hermann-Oberth-Strasse 22  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
12 June 2014 concerning maintenance of the  
European Patent No. 1363069 in amended form.**

**Composition of the Board:**

**Chairman** G. Ashley  
**Members:** B. Miller  
E. Kossonakou  
C. Donnelly  
D. Prietzel-Funk

## **Summary of Facts and Submissions**

- I. European patent No. 1 363 069 relates to a ventilation member and a vented housing comprising the ventilation member.
- II. An opposition was filed against the patent, based on the grounds of Article 100(c) EPC and of Article 100(a) EPC together with both Articles 54 and 56 EPC.
- III. In its interlocutory decision the opposition division found that the contested patent in amended form would meet the requirements of the EPC, on the basis of the claims of auxiliary request I submitted with a letter dated 19 December 2013.  
  
The appellant (opponent) filed an appeal against this decision.
- IV. The appellant requested that the decision under appeal be set aside and the patent be revoked.
- V. The respondent (proprietor) requested that the appeal be dismissed, i.e. that the European patent be maintained in amended form on the basis of the main request, originally filed as auxiliary request I on 19 December 2013 during the opposition proceedings. Alternatively, that the patent be maintained on the basis of one of auxiliary requests 1-4, filed with letter dated 18 May 2018, or of auxiliary requests 5-11, originally filed as auxiliary requests II-VIII on 19 December 2013 during the opposition proceedings, which were resubmitted with the reply to the grounds of appeal and renumbered in the letter of 18 May 2018.

VI. Claim 1 according to the main request reads as follows:

"A ventilation member (1, 21, 31) comprising:  
a breathable film (4) transmitting gas passing through  
an opening portion (8) of a housing (7) in a state in  
which said breathable film (4) is fixed to a  
support (2), which is inserted into said opening  
portion (8); said support (2) including a supporting  
portion (2a) for supporting said breathable film (4)  
and an insertion portion (2b) to be inserted into said  
opening portion (8) of said housing (7);  
wherein said insertion portion (2b) is divided into a  
plurality of parts (2h) circumferentially at least on  
an insertion start side thereof,  
characterized in that  
said support (2) has a ring shape, a minimum ring  
width (A) of said ring shape is larger than a  
distance (B) defined between a pair of said leg  
portions (2h) at an end of the insertion start side of  
said insertion portion (2b) and  
a single through hole (3) is formed in said  
support (2), and said breathable film (4) is fixed to  
said supporting portion (2a) so as to cover said single  
through hole(3)."

Claims 2 to 8 of the main request relate to preferred  
embodiments of the ventilation member according to  
claim 1.

Claim 9 is directed to

"A vented housing comprising a ventilation member  
according to claim 1, which is fixed to said opening  
portion (8) of said housing (7)."

VII. State of the art

The following documents cited in the contested decision are relevant for this decision:

- K1: Technical drawings concerning the ventilation element "Polyvent";
- K2: Product information concerning the ventilation element "GORE OLEOGARD" with technical drawings;
- K5: Declaration in lieu of an oath by Mr. Stephan Martin;
- K8: EP 1 102 002 A2.

The following documents were cited by the appellant for the first time in the appeal proceedings:

- K11: Universal Gore-tex® membrane snap-fit vent "Univent" specification sheet revised on 21 May 1995;
- K12a: Request for quotation by the Delco Company to Gore dated 8 December 1995;
- K12b: Quotation from W L Gore & Associates Inc. to the Delco Company dated 11 December 1995;
- K12c: Technical drawing ventilation member "Univent" with the part number VE006DEL;
- K13: Invoice from Gore to Delphi Automotive Systems dated 1 December 1999;
- K14: Technical drawing of "Univent" dated 29 May 1996, approved for production on 4 June 1996;
- K15: Declaration by Mr Dave DeGuisseppi dated 30 September 2014;
- K16: Letter from General Motors to Gore dated 20 January 1997.

VIII. With the summons to oral proceedings, the Board sent a communication pursuant to Articles 15(1) and 17(2) of the Rules of Procedure of the Boards of Appeal (RPBA) indicating to the parties its preliminary, non-binding opinion of the case.

In response to the summons the appellant filed documents K11A and K14A, which are annotated copies of K11 and K14.

IX. Oral proceedings were held on 19 June 2018 during which the appellant withdrew its objections against the main request pursuant to Articles 100(b), 123(2) and 84 EPC and its request for reimbursement of the appeal fee which had been raised in the statement setting out the grounds of appeal.

X. The appellant's arguments, as far as relevant for this decision, can be summarised as follows.

The subject-matter of claim 1 of the main request is mainly defined by functional features. The wording of claim 1 only requires that the breathable film covers a single hole of a supporting portion. Claim 1 does not exclude that the breathable film is located between a supporting portion and a further portion of the ventilation member such as a portion for fixing the breathable film or a portion for clipping a cap on the support.

The subject-matter of claim 1 of the main request therefore lacks novelty over the ventilation members disclosed in K11 and K14, which are publicly available as confirmed by K15.

The subject-matter of claim 1 is also obvious when starting from K2 or K11 as the closest prior art. Starting from K2 it would be obvious for a skilled person that the cross-shaped member defining four holes and supporting the breathable film is rendered superfluous when the ventilation member is downsized since the smaller surface area becomes self-supporting. Therefore it would be obvious to omit the cross-shaped member supporting the breathable film for smaller dimensioned ventilation members.

A two-step injection molding process leading to the structure shown in K11 is only needed for a breathable film made of polytetrafluoroethylene (PTFE), which is generally known to have anti-sticking properties. Starting from K11 it would be obvious for the skilled person that a breathable film, which is not made of PTFE, could be attached so as to cover the ventilation hole by adhesives, in particular when considering the ventilation member according to K2 or the teaching of K8.

XI. The respective arguments of the respondent can be summarised as follows.

The wording of claim 1 of the main request leaves no doubt that the breathable film must cover the hole in the support of the ventilation member.

K11 discloses a ventilation member wherein the breathable film does not cover the hole, but is located within the hole.

Starting from K2 it would not be obvious to omit the cross-shaped member forming four openings, since it is needed to support the breathable film. K2 does not provide any incentive to the skilled person that the



ventilation member could be downsized thereby rendering the cross-shaped member redundant.

Starting from K11 it would not be obvious to change the location of the breathable film. The ventilation member according to K11 comprises a PTFE film which is known to have anti-stick properties. Therefore, the skilled person would not expect that the breathable film of K11 could be bonded to the support so as to cover the hole. There is no incentive for the skilled person starting from K11 to turn to K2 or K8 and to use isolated features disclosed therein in the ventilation member described in K11.

### **Reasons for the Decision**

1. Interpretation of claim 1 of the main request

Claim 1 requires that the ventilation member has a supporting portion and an insertion portion wherein

"a single through hole (3) is formed in said support (2) and said breathable film (4) is fixed to said supporting portion (2a) **so as to cover** said single through hole(3)" (emphasis added).

The wording of claim 1 therefore requires that a single through hole is formed in the support which is covered by said film.

Covering a hole is not the same as closing the hole at some intermediate point along its length.

Consequently the supporting portion 2a has to be located at the end of the hole 3 in the support 2, otherwise the breathable film 4 cannot be fixed to the supporting portion 2a so as to cover the hole 3.

In other words, by defining that the breathable film is fixed so as to cover the hole, the wording of claim 1 requires not only that the breathable film is placed over the hole but further implies that the hole does not extent in the longitudinal direction on both sides of the breathable film.

The appellant argued in this regard that the manufacturing process described in paragraph [0035] of the contested patent, which states that the breathable film is integrated with support 2, implies that it could be integrally molded at some position within the hole.

The Board observes that paragraph [0035] of the contested patent discloses that the ventilation member can be manufactured by placing the breathable film in a mold and by subsequent injection molding. However, according to this method the breathable film must be supported by the mold wall during the injection moulding process and consequently is located at the outer surface of the ventilation member.

This conclusion is also supported by K14 which, the appellant accepts, shows that a two step injection molding process ("umspritzen") is carried out to manufacture a ventilation member wherein the breathable film is embedded within the hole.

Also, the other methods of supporting the breathable film listed in paragraph [0034] of the contested

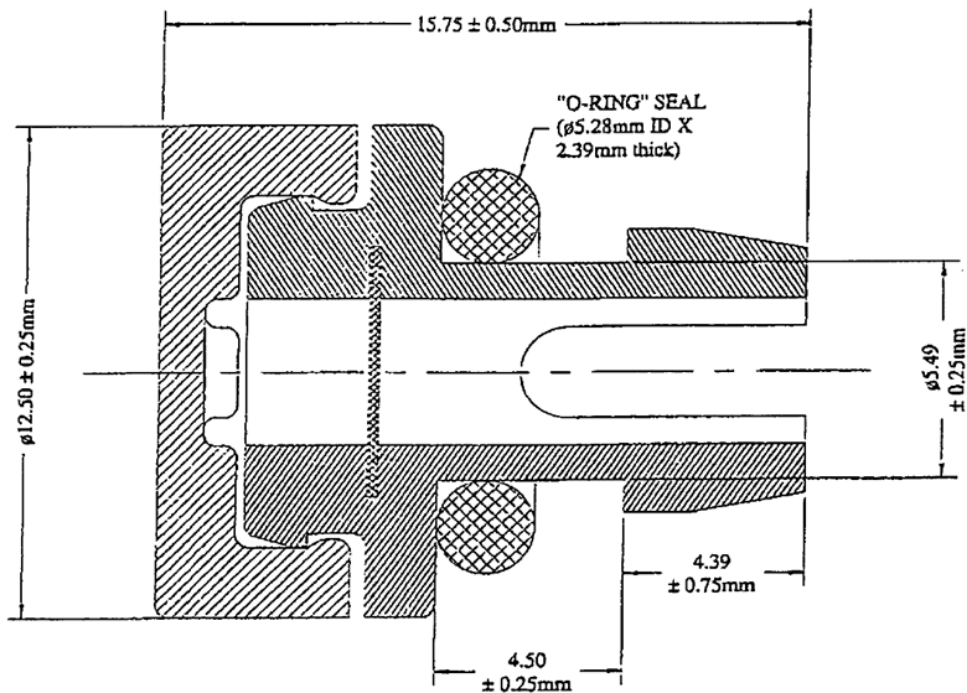
patent, i.e. heating deposition, ultrasonic deposition and bonding using a bonding agent, are all consistent with the interpretation that the breathable film is not located within the through passage of the hole, but is placed over the opening of the single hole.

2. Article 54 EPC

2.1 K11 ("Univent II")

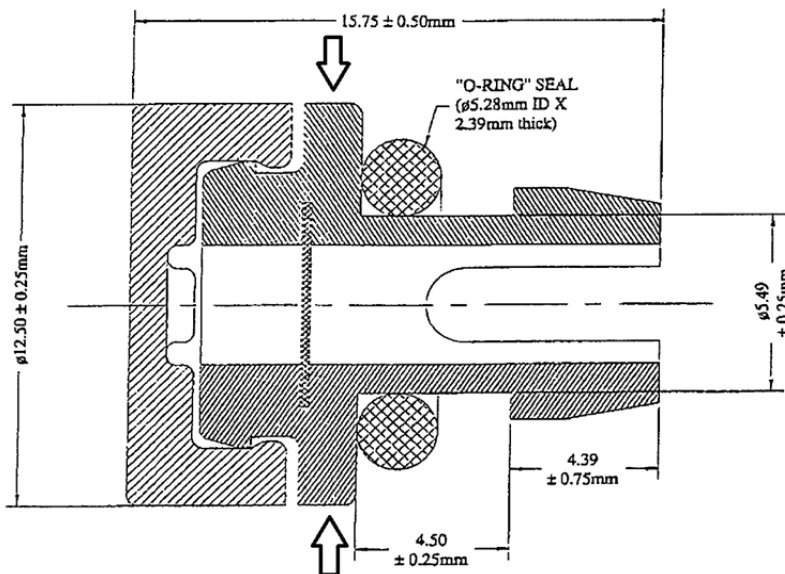
Document K11 represents a specification sheet for the Universal Gore-tex® membrane snap-fit vent ("Univent II").

The ventilation member according to K11 is illustrated below:

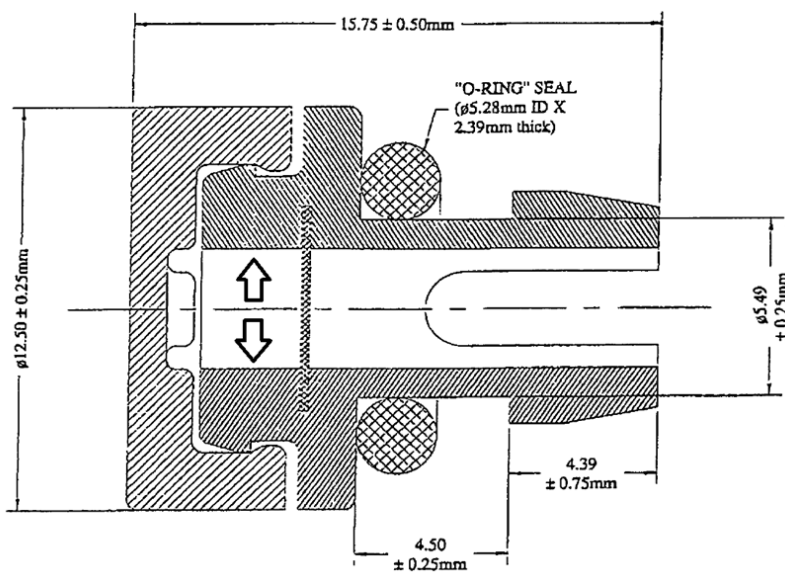


By reference to K11a, an annotated copy of K11, the appellant submitted that the ring-shaped part of the ventilation member, which is located between the breathable film and the leg portion, forms the

supporting portion as required by claim 1 of the main request (indicated below by arrows).



According to the appellant, the part of the ventilation member according to K11, which is located between the breathable film and the open end of the hole opposite the leg portion, can be considered as a further part of the support which acts as a cap-fixing portion or film-fixing portion (indicated below by further arrows within the hole).



However, the Board does not find this argument convincing.

The drawing of K11 clearly shows that the breathable film is integrally molded into the through passage of the ventilation member, since the body carrying the breathable film is shown as a solid block by using the same hatching. The appellant also confirmed during the oral proceedings that the ventilation member of K11 is formed by a two-step injection molding process ("umspritzen") wherein the same plastic material is used for forming the whole body.

Thus, the ventilation member according to K11 comprises a support and legs, wherein the breathable film is located in the through passage of the hole, but does not cover the hole (see interpretation of claim 1 indicated in point 1 above).

In conclusion, the subject-matter of claim 1 of the main request differs from the ventilation member shown in K11 in that the breathable film is fixed to the supporting portion so as to cover the single through hole.

## 2.2 K14 ("Univent III")

According to the appellant K14 shows a technical drawing of the ventilation member disclosed in K11 which confirms that the ventilation member of K11 is manufactured by a two-step injection molding process.

Therefore, the subject-matter of claim 1 is also new with respect to K14 for the same reasons as given for K11.

2.3 In conclusion, the subject-matter of claim 1 fulfils the requirements of Article 54 EPC.

3. Article 56 EPC

3.1 K2 ("Oleoguard") as the starting point

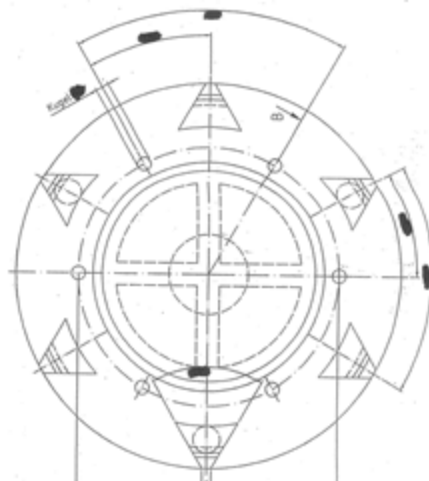
3.1.1 Disclosure of K2

K2 discloses information concerning the ventilation element "GORE OLEOGARD". The public availability of K2 pursuant to Article 54(2) EPC has been accepted by the respondent during opposition proceedings.

K2 is considered by both parties as a suitable starting point for assessing inventive step. The Board has no reason to deviate from this assessment since K2 discloses a ventilation member comprising a snap-fit arrangement similar to that defined in claim 1 of the main request.

The ventilation member according to K2 comprises a supporting portion and an insertion portion. The shape of the opening in the support of the ventilation element is not completely shown, since K2 does not disclose the top view. However, the ventilation member of K2 has the same structural design as the ventilation element "Polyvent" disclosed in K1 as confirmed in point IV of the declaration K5. This evaluation of K2 has not been contested by the respondent.

For ease of understanding, the top view of the support of the ventilation element of K1 is therefore shown below, which resembles the top view of the support of the ventilation element of K2:



As shown in this drawing, the support of the ventilation member of K2 comprises four openings (holes) having the shape of a quadrant.

3.1.2 Distinguishing feature with respect to K2

The subject-matter of claim 1 differs from K2 in that the support has a single through hole.

3.1.3 Effect derived from the distinguishing feature

According to paragraph [0022] of the contested patent a single hole provides a better air flow and reduced moisture condensation, provided that the diameter is sufficiently large.

However, the dimension of the through hole is not defined in claim 1. Therefore these effects, which are only obtained with a "large" size of hole, are not inevitably achieved by a ventilation member according to claim 1.

The appellant submitted that the only effect achieved by the use of a single hole is to reduce the air flow.

It is agreed that this effect might be obtained if a ventilation member is simply modified by reducing the number of holes without any modification to the area of the remaining hole(s).

However, since the air flow depends on the area provided by the hole(s) and not only on the number of holes, using a ventilation member with a single hole does not necessarily mean that the air flow is reduced compared to a ventilation member having a plurality of openings.

Furthermore, starting from the product described in K2 the alleged effect of reducing the air flow is not plausible, since the specific shape of the through hole and the total area of openings clearly demonstrate that the ventilation member of K2 should allow good air flow which is stated in K2 to be at least 12 l/h.

Moreover, the aim cannot be to reduce the air flow, since the purpose of the ventilation member is to provide air flow.

Therefore, it cannot be concluded that the effect obtained by the use of a single hole is either an increase or a reduction of the air flow.

#### 3.1.4 Objective technical problem

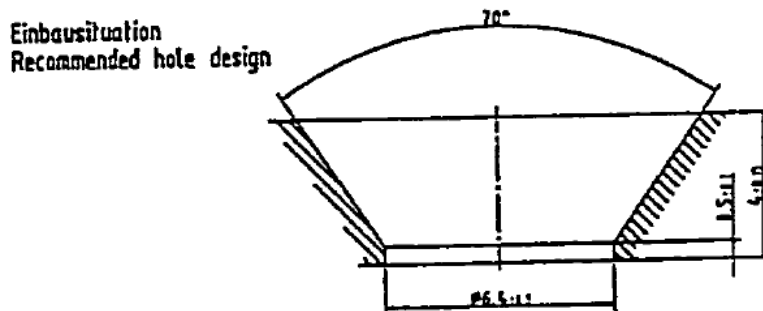
In the absence of any effects derived from the use of a single hole described in the contested patent, the objective technical problem can be formulated as the provision of an alternative.



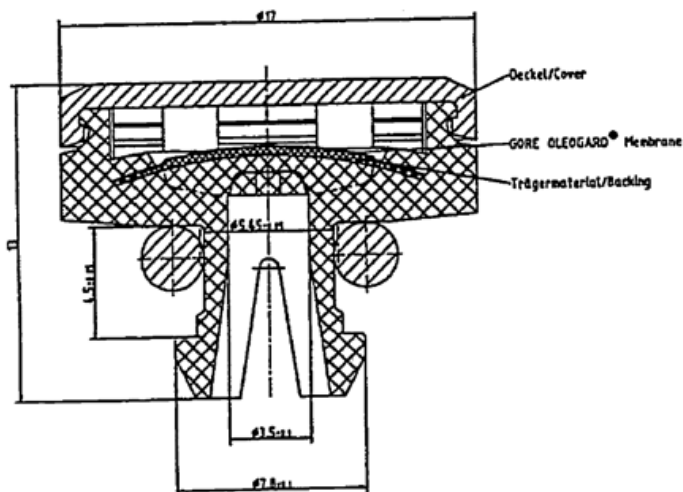
3.1.5 Obviousness

K2 is directed to a specific product which is described in great detail with clearly defined dimensions.

The ventilation member of K2 comprises a hole which has the following design:



As evident from the following figure of K2 the breathable film is arranged to cover the hole in a dome shape supported by cross-shaped member that spans the hole.



Starting from the specific product of K2 the skilled person would not simply remove the cross-shaped member, since it is required for maintaining the specific dome-shaped arrangement of the membrane.

The appellant contends that this support becomes superfluous when the ventilation member is downsized, since the span of the membrane would be reduced such that it becomes self-supporting.

However, K2 does not suggest that the specific product Gore Oleoguard can be obtained in different sizes. There is no incentive for the skilled person seeking an alternative to consider downsizing this specific product, in particular since K2 provides accurate dimensions and characteristics related thereto, such as the air flow.

Even if the skilled person would consider modifying the dimensions of the ventilation member of K2, there is no motivation provided by K2 to downsize the ventilation element to the extent that the supporting cross-shaped member becomes superfluous.

In summary, the argument of the appellant is based on a hindsight-analysis as to how the skilled person could arrive at the claimed subject-matter when starting from K2. There is, however, no motivation why the skilled person would modify the element of K2 in order to obtain the subject-matter of claim 1.

Starting from the specific product of K2 the subject-matter of claim 1 is therefore not obvious.

### 3.2 K11 ("Univent II") as the starting point

#### 3.2.1 Disclosure of K11

As discussed in point 2.1 K11 discloses a ventilation member wherein the breathable film is located in the through passage of the single hole.

### 3.2.2 Distinguishing feature with respect to K11

The subject-matter of claim 1 differs from the ventilation member of K11 in that the breathable film is fixed to the supporting portion so as to cover the single hole.

### 3.2.3 Effect derived from the distinguishing feature

The contested patent does not disclose any technical effect derived from the fact that the breathable film covers the single hole.

### 3.2.4 Objective technical problem

The objective technical problem can be formulated as the provision of an alternative.

### 3.2.5 Obviousness

(a) in view of K11 on its own

The breathable film used for the ventilation member of K11 is a Gore-tex membrane, which is made from polytetrafluoroethylene (PTFE).

PTFE is generally known for its non-stick properties which make bonding of the material to other surfaces very difficult. Consequently, the PTFE membrane of K11 is fixed by a two-step injection molding process as confirmed by the appellant during oral proceedings.

Since the non-stick properties of PTFE and the corresponding problem of bonding it to other materials are generally known, the skilled person would expect difficulties to arise when fixing a PTFE film to a support by a technique other than the two-step

injection molding process of K11. Therefore, the skilled person would not consider it to be an obvious modification to change the position of the breathable film in the ventilation member of K11 to the entry of the through passage defining the single hole in the support of K11, since such a modification would inevitably result in difficulties bonding the film to the support.

Hence, the subject-matter of claim 1 is not obvious considering K11 on its own.

(b) starting from K11 in combination with K8

The appellant argues that the skilled person could use a different breathable material such as a laminate of PTFE with a non-woven material, as disclosed in example 2 of K8.

The skilled person is aware that laminated PTFE membranes exist and that bonding of a laminated PTFE membrane is more easily achieved than bonding of a single-layered PTFE film.

However, such an analysis can only be made with knowledge of the invention. Starting from the specific product described in K11 there is no incentive for the skilled person to change the location of the breathable film within the ventilation member and therefore no incentive to search for a different membrane material and to turn to example 2 of K8 merely to select a laminated material.

(c) starting from K11 in combination with K2

K2 describes a very specific commercial product wherein the PTFE film is fixed in a specific arrangement for a specific purpose (see point 3.1.1).

Starting from the specific product described in K11 there is no incentive for the skilled person to consider a combination with the further specific commercial product described in K2, because they are structurally completely different.

Even if the skilled person were to consider K2 in addition, there is no incentive to focus on an isolated feature, i.e. the location of the breathable film, of the ventilation member of K2. Moreover, K2 does not indicate that the PTFE film used in K11 or the laminate used in K2 can be fixed to the support of K11 so as to cover the hole.

Therefore, starting from K11 and considering K2 in combination thereto the subject-matter of claim 1 is not obvious.

3.3 In conclusion, the subject-matter of claim 1 is not obvious when considering K2 or K11 as the starting point.

The subject-matter of claim 1 therefore fulfils the requirements of Article 56 EPC.

4. Public availability of the alleged prior use documented by documents K11 to K16

In light of the conclusions indicated above with respect to novelty (point 2.1) and inventive step (point 3.2), it is not necessary to discuss the public availability of the alleged prior use of the products depicted in K11, K11A, K14, K14a and supported by documents K12a, K12b, K12c, K13 and K15 to K16.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent on the basis of the following documents:
  - claims 1-9 of the main request, originally filed as auxiliary request I on 19 December 2013 during the opposition proceedings;
  - description pages 2-7 as filed in the oral proceedings before the Board, 8 and 9 of the patent specification and page 10, columns 17 and 18, lines 1-20, filed during the oral proceedings before the Board;
  - figures 1-19 of the patent specification.

The Registrar:

The Chairman:



C. Spira

G. Ashley

Decision electronically authenticated