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**Datasheet for the decision  
of 4 November 2010**

**Case Number:** T 0072/09 - 3.2.05

**Application Number:** 00976743.5

**Publication Number:** 1226018

**IPC:** B29C 55/02

**Language of the proceedings:** EN

**Title of invention:**

Coextruded, elastomeric breathable films

**Patentee:**

KIMBERLY-CLARK WORLDWIDE, INC.

**Opponent:**

The Procter & Gamble Company

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54, 56, 83, 123(2)

**Relevant legal provisions (EPC 1973):**

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**Keyword:**

"Added subject-matter (no)"  
"Sufficiency of disclosure (yes)"  
"Novelty (yes)"  
"Inventive step (yes)"

**Decisions cited:**

-

**Catchword:**

-



Case Number: T 0072/09 - 3.2.05

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.05**  
**of 4 November 2010**

**Appellant I:** The Procter & Gamble Company  
(Opponent) One Procter & Gamble Plaza  
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**Representative:** Samuels, Lucy Alice  
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**Appellant II:** KIMBERLY-CLARK WORLDWIDE, INC.  
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**Representative:** Davies, Christopher Robert  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
11 November 2008 concerning maintenance of  
European patent No. 1226018 in amended form.

**Composition of the Board:**

**Chairman:** W. Zellhuber  
**Members:** P. Michel  
E. Lachacinski

## Summary of Facts and Submissions

I. Appellants I and II (opponent and patent proprietor respectively) lodged appeals against the decision of the Opposition Division maintaining European Patent No. 1 226 018 in amended form.

II. Oral proceedings were held before the Board of Appeal on 4 November 2010.

Appellant I requested that the decision under appeal be set aside and the patent in suit be revoked in its entirety.

Appellant II requested, as a main request, that the appeal of appellant I be dismissed; and, as an auxiliary measure, that the decision under appeal be set aside and the patent in suit be maintained on the basis of any of the sets of claims filed as first to sixth auxiliary requests, wherein the first to third, fifth and sixth auxiliary requests were filed on 4 October 2010, and the fourth auxiliary request was filed on 2 November 2010.

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

"1. A breathable, elastic multilayered film comprising:

- a core layer comprising a first elastomer, at least one filler; and a high performance elastomer which is an elastomer having a level of hysteresis of less than about 75 percent, wherein said first elastomer is a low performance elastomer which is an elastomer having a level of hysteresis of greater than about 75 percent

and which is present in an amount of between about 35 and 50 percent of said core layer, and wherein the high performance elastomer is blended with the first elastomer, and

- at least one skin layer comprising a second elastomer, wherein said second elastomer is a high performance elastomer which is an elastomer having a level of hysteresis of less than about 75 percent, and further wherein said elastic multilayered film demonstrates a water vapor transmission rate of greater than 1000g/m<sup>2</sup>/24hrs."

IV. The following documents are referred to in the present decision:

D1: WO-A-96/19346

D3: WO-A-97/04955

D4: EP-A-0 659 808

D6: Kraton polymers, Fact sheet K0151

V. Appellant I argued substantially as follows in the written and oral procedure:

The appeal of appellant II is inadmissible, since the grounds of appeal did not set out the basis on which it was wanted that the patent should be maintained. All the requests of appellant II were thus late filed.

The application as filed does not contain a general disclosure of the high performance elastomer being blended with the low performance elastomer. Thus, the sentence at page 5, lines 27 to 30 only refers to small amounts of high performance elastomer. The passage at

page 14, lines 18 to 24 only refers to amounts of between about 5 and 20 percent of a styrenic-based block copolymer. The reference to a blend at page 13, line 13 refers back to the passage on page 5. There is no mention of larger amounts of high performance elastomer.

The sentence at page 10, lines 33 to 35 of the application as filed refers to hysteresis being determined for a sample having a basis weight of 10 gsm. This feature should thus be present in the claims.

The subject-matter of claim 1 of the main request is thus not disclosed in the application as filed.

The patent in suit does not disclose a reproducible method for determining hysteresis. Paragraphs [0052] and [0099] refer to two tests which give rise to different results, so it is not clear which test must be applied.

According to paragraph [0063], at least 35% filler should be used. Claim 1 does not, however, specify any minimum amount of filler in the core layer. The specified value for water vapor transmission rate cannot be achieved across the scope of the claim.

Kraton, the high performance elastomer of the core layers in Table 3 at page 17 of the patent in suit is a blend of high and low performance elastomers. Since the high performance elastomer may be a blend, the core layer could contain more than 50% low performance elastomer.

The use of the term "about" in claim 1 means that the hysteresis levels of the high and low performance elastomers could overlap.

The invention is thus not sufficiently disclosed.

Example 3 of document D3, as set out in Table 5, discloses a laminate in accordance with claim 1 of the patent in suit. Layer A is a core layer in which Pebax is a high performance elastomer and Layer C is a skin layer. As set out at page 13, Ampacet is a concentrate containing 50 to 75% filler and 50 to 25% of LLDPE. Thus, layer A of Example 3 contains 20 to 40% of LLDPE and 10% Exxon, making a total of 30 to 50% low performance elastomer.

The argument that Pebax MV3000 is not a high performance elastomer was raised for the first time at oral proceedings, so that the case should be remitted to the first instance to enable this argument to be considered.

The subject-matter of claim 1 is thus not new.

The closest prior art is document D3. As shown in Table 4 at page 18 of the patent in suit, whilst elasticity is improved, breathability is undermined. Thus, the problem to be solved can only be to improve elasticity whilst not increasing costs. The obvious solution is to add a high performance elastomer, arriving at the film of claim 1 by routine experimentation.

Documents D1 and D4 may also be considered to represent the closest prior art. It does not involve an inventive step to incorporate some high performance elastomer in the core layer of document D1. It also does not involve an inventive step to apply elastomeric skin layers to the core layer of document D4.

The subject-matter of claim 1 thus does not involve an inventive step.

VI. Appellant II argued substantially as follows in the written and oral procedure:

None of the requests of appellant II contain claims broader than those maintained by the opposition division. The question of admissibility of the appeal is thus a moot point.

The description and claims of the application as filed provide support for the blending of the high performance elastomer with the low performance elastomer in general. Whilst claim 21 is dependent from claim 17, there is connection between blending and the composition of the skin layer.

It is not necessary for claim 1 to include an explanation of the method disclosed for measuring the level of hysteresis.

The subject-matter of claim 1 of the main request is thus disclosed in the application as filed.

As stated in paragraph [0099] of the patent in suit, the high and low performance elastomers must satisfy

both of the tests. Since the high and low performance elastomers must satisfy both tests, there must be a gap in the hysteresis levels between the high and low performance elastomers in spite of the use of the word "about" in claim 1. The skilled person is capable of finding the amount of filler required to achieve the specified water vapour transmission rate without undue burden. The skilled person is also provided with sufficient information to identify high and low performance elastomers, and thereby prepare the laminate of claim 1. Kraton is, in fact, a high performance elastomer. If a low performance elastomer were to be present in a blend, then it must be regarded as providing a part of the required amount of low performance elastomer.

The invention is thus sufficiently disclosed.

There is no evidence to suggest that Pebax MV3000, as used in layer A of Example 3 of document D3 is a high performance elastomer. Whilst Exxon and Ampacet are both low performance elastomers, there is no disclosure of the low performance elastomer being present in an amount of about 35 to 50%.

The argument that the hydrophilic polymers specified in document D3 are not necessarily high performance elastomers was raised in the response of 5 August 2009.

The subject-matter of claim 1 is thus new.

The problem to be solved, starting from document D3, is to provide a laminate having improved elasticity whilst maintaining an acceptable level of breathability. There



is nothing in document D3 which suggests the solution to this problem proposed in claim 1. The subject-matter of claim 1 thus involves an inventive step.

## **Reasons for the Decision**

### 1. Admissibility of the appeal of appellant II

The main request of appellant II is for dismissal of the appeal of appellant I and the auxiliary requests involve restrictions of the claims with respect to the form in which the patent in suit was maintained by the opposition division. These requests must be considered in view of the role of appellant II as respondent to the appeal of appellant I. It is thus not necessary for the purposes of the present decision to consider the question of admissibility of the appeal of appellant II.

#### *Main request*

### 2. Amendments

#### 2.1 Blend

Claim 1 specifies that the high performance elastomer is blended with the first (low performance) elastomer.

According to page 10, lines 23 to 25, of the application as filed (published version) the term "blend" means a mixture of two or more polymers. The sentence at page 5, lines 27 to 30 refers to "small amounts of higher performance elastomer" being blended with the low performance elastomer. At page 13,

lines 11 to 13, reference is made to fillers being "added to the core layer polymer extrusion blend". Blending is also referred to in the paragraph at page 14, lines 18 to 24, albeit in connection with particular elastomers. Finally, claim 21 is directed to blending.

Thus, the application as filed consistently refers to the high performance elastomer being blended with the low performance elastomer, and the disclosure of blending is not restricted to "small amounts" of high performance elastomer.

## 2.2 Basis weight

Claim 1 defines a high performance elastomer as being an elastomer having a level of hysteresis of less than about 75 percent.

At page 10, lines 33 to 35, of the application as filed, it is stated that a high performance elastomer is an elastomer having a level of hysteresis of less than about 75 percent as determined by the method described below and desirably, less than about 60 percent for a sample at a basis weight of 10 gsm. The method is then described at page 24, lines 10 to 27. The fact that claim 1 does not specify details of the test method does not result in an extension of subject-matter beyond the content of the application as filed.

## 2.3 The subject-matter of claim 1 is thus disclosed in the application as filed, so that the requirements of Article 123(2) EPC are satisfied.

3. Sufficiency of disclosure

3.1 Claim 1 specifies values for the level of hysteresis of the first elastomer, the high performance elastomer and the second elastomer. There is not, however, any reference in the claim to the hysteresis of the blended elastomer. The person skilled in the art is capable of selecting elastomers having the specified hysteresis, and is thus in the position to manufacture a film as specified in claim 1.

Paragraph [0099] of the description of the patent in suit describes two methods to be used to determine hysteresis, that is, a 50% and a 100% extension tests. In accordance with paragraph [0121], in order to satisfy the minimum and maximum hysteresis values specified in claim 1, an elastomer must achieve the specified values in both tests. It is thus not the case that an elastomer having a level of hysteresis of 75% in one of the tests could be regarded as both a high and a low performance elastomer. It also follows that the data of Table 1, at page 8 of the response of appellant I received on 4 November 2009, concerning Vistamaxx 6102, mean that Vistamaxx 6102 is neither a high nor a low performance elastomer within the meaning of claim 1.

3.2 Whilst claim 1 does not specify the amount or particle size of the filler, there is no evidence to suggest that the person skilled in the art would not be able to select a suitable amount and particle size of filler in order to achieve a water vapor transmission rate of greater than 1000g/m<sup>2</sup>/24hrs by means of routine experimentation not constituting an undue burden. In

particular, there is no evidence to suggest that the preferred values for the amount of filler given in paragraph [0063] of the patent in suit are, in fact, essential for performance of the invention.

3.3 Similarly, the skilled person would be able to choose a suitable amount of high performance elastomer in order to achieve the desired film performance.

3.3.1 According to paragraph [0066] of the patent in suit, Kraton ® G1657 polymer is a high performance elastomer as required by claim 1. It was alleged on behalf of appellant I, that, according to document D6, Kraton ® G1657 M polymer is, itself, a blend of a high performance elastomer with a lower performance elastomer.

This was disputed by appellant II, who stated that Kraton ® G1657 is a high performance elastomer. In any case, in order to satisfy the requirements of claim 1, if a blended polymer containing a high performance elastomer and a low performance elastomer was to be used, the high performance component would have to be considered as being at least a part of the total amount of high performance elastomer, and the low performance component would have to be considered as being at least a part of the total amount of low performance elastomer.

3.4 The invention is thus sufficiently disclosed.

4. Novelty

Document D3 discloses a breathable multilayer film which is a five layer film having the structure

C:A:B:A:C, C being a hydrophilic monolithic skin layer free of filler, B is a microporous core layer containing a thermoplastic polymer and a filler, and A is a microporous adhesive layer for bonding layers B and C. In an alternative embodiment, a three layer structure C:D:C is disclosed, in which C is a hydrophilic monolithic skin layer free of filler, and D is a microporous adhesive core layer.

Particular reference was made to Example 3, as shown in Table 5 on page 37. In this Example, layer B consists of 80% Ampacet 100720 and 20% Exxon 357C80. Layer A consists of 80% Ampacet 100720, 10% Exxon 357C80 and 10% Pebax MV3000. Layer C consists of 100% Pebax MV3000.

Both parties agreed that Exxon 357C80 and the carrier resin present in Ampacet 100720 are low performance elastomers. In addition, it was alleged that Pebax MV3000 is a high performance elastomer within the definition of the patent in suit. No evidence was, however, provided to this effect. Whilst Pebax 4033 is used in the examples of the patent in suit as a high performance elastomer, this does not imply that all Pebax elastomers are similarly high performance elastomers.

The argument that Example 3 of document D3 does not include a high performance elastomer was not introduced by appellant II into the proceedings for the first time at the oral proceedings. Thus, it was pointed out in paragraph 25 of the response to the appeal of appellant I received on 5 August 2009, that the hydrophilic polymer resins of document D3 are not necessarily also high performance elastomers. It is

therefore not necessary to remit the case to the department of first instance in order to allow appellant I to respond to this argument.

The paragraph at page 13, lines 11 to 19, of document D3 refers to filler concentrates containing from about 50 to 75% filler and from 50 to 25% of a thermoplastic carrier resin. This does not mean that the 80% of Ampacet 100720 present in layers A and B of Example 3 may be understood as a disclosure of layers containing from 20 to 40% filler. The example refers to a single formulation which may contain anything from 20 to 40% filler, according to the amount of filler present in Ampacet 100720. No evidence has been produced which could establish how much filler is present in Ampacet 100720.

As regards the general disclosure of document D3, there is a reference to Pebax 4033 in the list of suitable hydrophilic polymers for the outer monolithic layers at page 14, line 24 to page 15, line 3. There is further, at page 14, lines 2 to 10, a disclosure that the microporous core layer may contain scraps from any of the layers of the multilayer film in an unspecified amount. This does not, however, amount to a disclosure of a core layer having the composition as specified in claim 1.

The subject-matter of claim 1 is thus new.

5. Inventive step

Document D3 is regarded as representing the closest prior art, disclosing a breathable multilayer film

having a core layer and a skin layer, as discussed under point 4 above. In the films of claim 1 of the patent in suit as maintained by the Opposition Division, the presence of a high performance elastomer results in an improvement in the elastic properties of the film, whilst the retention of a proportion of low performance elastomer in the core layer results in an acceptable water vapour transmission rate.

The problem to be solved can thus be expressed as being to provide a laminate having improved elasticity whilst maintaining an acceptable level of breathability.

There is nothing in document D3 which suggests the solution proposed in claim 1, that is, to use a blend of high and low performance elastomers in the core layer and to use a high performance elastomer in the skin layer, document D3 not distinguishing between high and low performance elastomers. It is not accepted that the concept of a blend of high and low performance elastomers as specified in claim 1 could result from routine optimisation.

Document D4 relates to a porous film suitable for use as the back sheet of a disposable diaper (see page 2, line 13). There is no incentive to use this sheet as a core layer in a multilayered film.

Document D1 is no more relevant than document D3, since there is no suggestion of incorporating a high performance elastomer in the core layer of the film.

The subject-matter of claim 1 thus involves an inventive step. Claims 2 to 9 are directly or

indirectly appendant to claim 1 and relate to preferred features of the film. The subject-matter of these claims thus also involves an inventive step.



**Order**

**For these reasons it is decided that:**

The appeals are dismissed.

The Registrar:

The Chairman:

D. Meyfarth

W. Zellhuber