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**D E C I S I O N**  
of 21 July 1998

**Case Number:** T 0622/94 - 3.2.2

**Application Number:** 87110182.0

**Publication Number:** 0257280

**IPC:** A61F 13/15

**Language of the proceedings:** EN

**Title of invention:**  
Sanitary napkin with composite cover

**Patentee:**  
McNeil-PPC, Inc.

**Opponent:**  
Mölnlycke AB  
The Procter & Gamble Company

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54(2), 56

**Keyword:**  
"Novelty and inventive step (yes) - after amendment"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 0622/94 - 3.2.2

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.2  
of 21 July 1998

**Appellant:** Mölnlycke AB  
(Opponent 01) 405 03 Göteborg (SE)

**Representative:** Görg, Klaus, Dipl.-Ing.  
Hoffmann-Eitle  
Patentanwälte  
Postfach 81 04 20  
81904 München (DE)

**Appellant:** The Procter & Gamble Company  
(Opponent 02) One Procter & Gamble Plaza  
Cincinnati  
Ohio 45202 (US)

**Representative:** Bottema, Johan Jan  
Procter & Gamble  
Patent Department  
Postfach 2503  
65818 Schwalbach am Taunus (DE)

**Respondent:** McNeil-PPC, Inc.  
(Proprietor of the patent) Van Liew Avenue  
Milltown  
New Jersey 08850 (US)

**Representative:** Groening, Hans Wilhelm, Dipl.-Ing.  
Boehmert & Boehmert  
Franz-Joseph-Strasse 38  
80801 München (DE)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 6 June 1994  
rejecting the opposition filed against European  
patent No. 0 257 280 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** W. D. Weiß  
**Members:** M. Bidet  
J.-C. M. De Preter

## Summary of Facts and Submissions

- I. The respondent is proprietor of European patent No. 0 257 280.
- II. The patent was opposed by the appellants on the grounds of lack of novelty and inventive step. The opposition division rejected the oppositions in a decision dispatched on 6 June 1994 having regard to the following documents:

D1: EP-A-0 040 447

D3: DE-A-3 214 354

- III. Both opponents filed an appeal against this decision.
- IV. Oral proceedings were held on 21 July 1998 during which the respondent filed a new Claim 1 with the following wording:

"A composite cover (14) for an absorbent product having an unidirectional fluid transmissivity characteristic comprising:

a first body-facing layer (30) of a substantially hydrophobic apertured polymeric film having a thickness of less than about 0.762 mm (30 mils), the apertures providing the film with a total open area of at least 35%, and

a non-woven liner (32), bonded to the surface of the first layer (30), comprising fibres,

characterised in that the apertures of the first body-facing layer (30) are of an insufficient average size to permit passage of a 1% saline solution through the film solely under the influence of gravity and that the

second layer (32), which is a non-woven fabric, contains capillaries of a sufficient size to wicking 1% saline solution less than 12,7 mm (0.5 inches ) vertically after 15 minutes."

V. The appellants (opponents) requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

The respondent (proprietor of the patent) requested that the appeal be dismissed and that the patent be maintained as amended, with the following documents:

**Claims:** 1 to 7 as submitted at the oral proceedings

**Description:** pages 2, 4, 5 and 13 as submitted at the oral proceedings  
pages 3, 6 to 12 as granted

**Figures:** as granted

VI. The appellants argued that the subject-matter of Claim 1 was not novel with regard to document D1, more particularly, because the results of tests showed that the two layers had the qualities of the features of Claim 1 of the patent in suit, or - if novel on the simple fact that the second layer bonded to the surface of first layer was a non-woven fabric - that it would have been obvious for the skilled person to combine the teaching of the closest prior art according to document D1 with the teaching of document D3 to arrive at the subject-matter of Claim 1.

The respondent argued that the main difference between Claim 1 and the composite cover according to D1 consisted in that the second layer was a non-woven fabric and the capillaries had sufficient size to

wicking the 1% saline solution less than 12.7 mm vertically after 15 minutes. As to inventive step there was no document disclosing a non-woven fabric acting as second layer and the claimed combination was not suggested by D1 alone or in combination with the teaching of document D3.

### Reasons for the Decision

1. The appeal is admissible
2. *Amendments*

Claim 1 contains all the features of Claim 1 as granted and is completed by two features. The first one relates to the "unidirectional fluid transmissivity characteristic" of the absorbent product and results from the ability of the fluid to pass through the apertures of the first body-facing layer and to avoid absorbed liquid to return back to this first body-facing layer (see page 2 of the patent, lines 31 to 42, page 5, lines 26 to 29). The second feature concerns the second layer which is a "non-woven fabric" being the subject-matter of Claim 3 as granted and cited in the patent in suit page 4, line 26 and in the application as filed page 8, line 27.

Dependent claims 2 to 7 correspond to the granted Claims 4 to 9. The claims as granted were not objectionable on the ground of Article 123(2) EPC.

Therefore, the requirements of Article 123 EPC are met.

3. *Novelty*

3.1 The Board is in agreement with all the parties that document D1 discloses a composite cover comprising all the features in the preamble of claim 1. According to document D1 (see claim 1) the non-woven liner consists of a layer of fibres comprising a multiplicity of **individual** fibres. In the preferred embodiment, these fibres are dispersed over and affixed to the inner surface of the topsheet, corresponding to the "first body-facing layer" in the wording of claim 1 of the patent in suit. In particular, the layer of fibres is produced by spraying an adhesive on the inner surface of the topsheet on which adhesive the individual fibres are deposited by a flocking operation (see document D1, the paragraph bridging the pages 17 and 18). In this manner a loose structure is produced which is characterised by individual fibre ends extending from the surface of the topsheet (see photographs 3 and 4 annexed to the test report submitted by appellant II [Procter & Gamble] on 13 October 1994). The deposited fibre layer is clearly not self-supporting but its stability depends on the topsheet on which it is deposited.

Such a loose construction of individual deposited fibres is clearly different from a "non-woven fabric" used according to claim 1 of the patent in suit which according to general understanding in the art is a self-supporting textile structure of bonded fibres or continuous filaments. The bonding may be effected by various techniques including adhesive bonding, mechanical interlocking by needling or fluid jet entanglement, thermal bonding or stitch bonding.

The topsheet according to document D1 is a substantially hydrophobic apertured polymeric film the total open area of which corresponds to the at least 35% indicated in Claim 1 of the patent in suit. Less than 25 percent of the apertures of the known topsheet have a small equivalent hydraulic diameter (EHD) of less than or equal to 0.064 cm (see document D1, page 11, last paragraph). Since an upper limit for the EHD of the remaining apertures and the permeability of the **isolated topsheet** with respect to a 1% saline solution are not mentioned in document D1, a known topsheet may meet the specification given in Claim 1 of the patent in suit but also may fall outside therefrom.

Consequently, the subject-matter of claim 1 differs from what is disclosed in document D1 by the combination of features in its characterising portion.

3.2 Document D3 does not disclose a composite cover but a single layer cover consisting of non-woven material.

This document is, therefore, even more remote to the subject-matter of claim 1 than is document D1.

3.3 The subject-matter of claim 1 is, therefore, novel.

#### 4. *Inventive Step*

4.1 Following the analysis given above, document D1 is the prior art lying closest to the subject-matter of Claim 1. This document discloses all the features in the preamble of Claim 1.

This document, in congruence with the patent in suit, aims at solving the technical problem (see page 2, second paragraph) to provide a disposable absorbent article having improved rewet and strikethrough characteristics.

The patent in suit, in its description (see page 2, lines 31 to 42), objects that the article disclosed in document D1 still has a tendency of the fluid to retransmit back through the cover as the absorbent core becomes increasingly saturated during use or is subjected to a pressure.

According to the analysis given in point 3.1 above, the subject-matter of Claim 1 differs from what is disclosed in document D1 by the combination of features in its characterising portion.

At the oral proceedings, the appellants, based on test results, have denied the respondent's assertion that the subject-matter of Claim 1 solves the above problem and improves the rewet characteristics with respect to the known product and have submitted that the known product is equivalent in this respect.

In this case, the objective technical problem to be solved starting from document D1 would have been merely to look for an alternative solution to the same problem which allows for a more economical production.

- 4.2 The principle of the solution as represented by the combination of the features in the characterising portion of Claim 1 consists in the first body-facing layer and the non-woven fabric being separately either particularly fabricated or selected from the products available on the market on the basis of the parameters given in claim 1 which are measurable separately with either of the respective components, and being bonded

together by a suitable method. In contrast thereto, the suitability of the components which make up the known composite cover can only be verified retroactively by measuring the final composite cover due to the in situ production of the liner by a flocking operation.

- 4.3 Due to the particular production process using an in situ flocking method, the liner layer of the composite cover disclosed in document D1 has a structure which is characterised by a certain amount of individual fibres which are oriented vertically away from the surface of the body-facing layer and in the direction of the absorbent core (see photographs 3 and 4 annexed to the test report submitted by appellant II [Procter & Gamble] on 13 October 1994). When viewing the structure of this known liner, the expert is guided to the assumption that at least part of the favourable influence of the known liner is due to the vertically oriented fibres of this particular structure. This assumption is even backed up by document D3 teaching that the unidirectional transmissivity is due to the wicking effect of fibres which extend between the absorbent core and the top sheet (see the paragraph bridging pages 13 and 14).

Consequently, both documents lead away from the teaching of the patent in suit which, in contrast thereto, suggests the use of a liner in form of a non-woven fabric, under the condition that the components (polymeric film and non-woven fabric) making up the composite cover are particularly fabricated or selected from the products available on the market to meet the measurable requirements specified in the Claim 1. The ends of the fibres making up a non-woven fabric do not protrude from its surface but are integrated therein. From all the foregoing, it results that it was not obvious to the skilled person to arrive at the claimed composite cover in view of the cited prior art.

Therefore, the subject-matter of Claim 1 is considered to involve an inventive step as required by Articles 52(1) and 56 EPC.

5. Since Claim 1 is allowable, the same applies to claims 2 to 7 which are dependent on Claim 1.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent with the following documents:

**Claims:** 1 to 7 as submitted at the oral proceedings

**Description:** pages 2, 4, 5 and 13 as submitted at the oral proceedings  
pages 3, 6 to 12 as granted

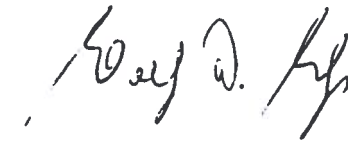
**Figures:** as granted.

The Registrar:



S. Fabiani

The Chairman:



W. D. Weiß