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D E C I S I O N
of 14 January 2005

Case Number: T 0445/02 - 3.2.6

Application Number: 94106909.8

Publication Number: 0623332

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:
Method for making an absorbent product having integrally protected adhesive

Patentee:
McNEIL-PPC, INC.

Opponent:
The Procter & Gamble Company

Headword:
-

Relevant legal provisions:
EPC Art. 83, 56

Keyword:
"Sufficiency of disclosure - yes"
"Inventive step - yes (after amendment)"

Decisions cited:
T 0092/92

Catchword:
-

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Case Number: T 0445/02 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 14 January 2005

Appellant: (Opponent)
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Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 7 March 2002 concerning maintenance of European patent No. 0623332 in amended form.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Pricolo
R. T. Menapace

Summary of Facts and Submissions

I. The appeal is from the interlocutory decision of the Opposition Division posted on 7 March 2002 concerning the maintenance in amended form of European patent No. 0 623 332, granted in respect of European patent application No. 94106909.8.

In the decision under appeal the Opposition Division considered that the subject-matter of claim 12 of the patent as granted extended beyond the content of the application as filed and that the patent could be maintained on the basis of the claims according to the patentee's auxiliary request in which claims 12 and 13 were deleted. In coming to the latter conclusion, the Opposition Division held that the patent in suit disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art and that the subject-matter of the independent claims was novel and also involved an inventive step over the available prior art represented in particular by documents

D1: US-A-4 376 440,

which was considered to represent the closest prior art, and

D2: WO-A-91/13752.

II. The appellant (opponent) lodged an appeal, received at the EPO on 3 May 2002, against this decision and simultaneously paid the appeal fee. The statement setting out the grounds of appeal was received at the EPO on 8 July 2002.

III. In an annex to the summons for oral proceedings pursuant to Article 11(2) Rules of Procedure of the boards of appeal the Board expressed its preliminary opinion that it would appear that the European patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art and that it had to be discussed what objective technical problem was solved by the claimed invention in the light of the closest prior art D1. In fact, contrary to the opinion of the Opposition Division, it would appear that the objective problem to be solved by the claimed subject-matter could not be seen in reducing the complexity of the casting mechanism used in D1.

IV. With letter dated 9 December 2004, the respondent (patentee) filed amended patent documents forming the basis for first to fourth auxiliary requests and requested that the patent be maintained in the form allowed by the Opposition Division or on the basis of one of the auxiliary requests.

V. Oral proceedings took place on 14 January 2005.

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent only maintained the request that the patent be maintained on the basis of the amended documents filed with letter dated 9 December 2004 as second auxiliary request, with page 5 of the description as amended during the oral proceedings.

VI. Independent claims 1 and 3 of the appellant's request read as follows:

"1. A method of applying and protecting positioning adhesive (10) on an absorbent article (1) having a fluid impervious barrier (6) having a first surface forming a garment facing surface (4) of such article and a second surface (11) opposite said first surface (4), comprising the steps of:
a) deforming portions of said barrier (6) so as to form a plurality of depressions (17) in a pattern on said second surface (11) of said barrier (6) so as to form a corresponding raised area (16) in said first surface (4) of said barrier (6) opposite each of said depressions (17);
b) depositing an adhesive (10) onto said raised areas (16); and
c) inverting each of said depressions (17) and said raised areas (16) so as to form adhesive (10) containing depressions (9) in said first surface (4) of said barrier (6) and raised areas in said second surface (11)".

"3. A method of applying and protecting positioning adhesive on an absorbent article (1) having a fluid impervious barrier (6) having a first surface forming a garment facing surface (4) of such article (1) and a

second surface (11) opposite said first surface, comprising the steps of:
- transferring said adhesive (10) from a reservoir onto a release surface in a pattern, said adhesive (10) capable of bonding to said barrier (6) with greater tenacity than to said release surface;
- transferring said adhesive (10) from said release surface onto said first surface (4) of said barrier (6) in said pattern; and then
– deforming portions of said barrier so as to form a plurality of depressions (9) in a pattern on said first surface (4) of said barrier (6) so as to form a corresponding raised area in said second surface (11) of said barrier (6) opposite each of said depressions (9); wherein said adhesive (10) is located in said depressions (9)".

VII. In support of its requests the appellant relied essentially on the following submissions:

Claim 10 of the patent in suit as maintained by the Opposition Division set out a mere wish to invert raised areas and claim 11 a mere proposal to achieve this by vacuum, without there being any teaching in the patent as to how these things could be achieved. The methods of claims 1 to 9 and 12 to 15 of the patent as maintained by the Opposition Division required that depressions, or recessed areas, formed in a first step were precisely in registration, during the second step, with means for depositing the adhesive. However, the patent in suit described no practical means for achieving the registration, at least over the whole scope of the claims concerned. The only registration means described was an electric eye, which might be

practical if the depressions were large and the line speed of the manufacturing plant low, but the claims placed no explicit limitation on either. Therefore, the patent as maintained by the Opposition Division did not meet the requirements of Article 83 EPC.

The method of claim 1 of the appellant's main request differed from the method of claim 1 of the patent as maintained by the Opposition Division, which was obvious at least having regard to the disclosures of documents D1 and D2, in that the adhesive was applied to raised areas and these raised areas were then inverted to form adhesive-containing depressions. It was not apparent that this solved any objective problem with the prior art. The scope of claim 1 included a method in which the fluid impervious barrier was provided with continuous, longitudinally extending depressions. In such a case the adhesive could be deposited in a continuous manner and there was no need for registration with each depression as in the case of discontinuous depressions. As regards claim 3, it related to a mere collocation of two unrelated steps, namely a step of applying adhesive to a surface and a step of forming adhesive-containing depressions. Claim 3 thus solved two entirely separate, unrelated problems and it was therefore permissible to search for partial solutions in different documents without having to look for a suggestion to combine the teachings contained in those documents. Adhesive printing processes were well known in the art, as shown e.g. by document

D3: US-A-4 337 772

Also well known was the process of transfer printing adhesive in which adhesive was first transferred to a release surface and then from the release surface to a substrate. In fact, this was a known standard procedure. As regards the step of forming adhesive-containing depressions, it did not involve an inventive step as discussed in relation to claim 1 of the patent as maintained by the Opposition Division.

VIII. The respondent's submissions in support of its requests can be summarized as follows:

The patent in suit disclosed to invert the depressions formed in the fluid impervious barrier by making use of a vacuum forming plate. Furthermore, the patent in suit included a detailed description of how to accomplish a registration between the depressions and the means for depositing adhesive by means of an electric eye. The appellant did not furnish any proof that there could be depressions so small or a line speed of the manufacturing plant so high that registration by means of an electric eye would no longer be possible in practice. Therefore, the invention was sufficiently disclosed.

Compared to the method of D1 in which adhesive was applied in the depressions, claim 1 provided a facilitated manufacturing method. Indeed, since adhesive was applied to raised areas and then these were inverted to form adhesive-containing depressions, the adhesive could be simply applied by wiping it onto the raised areas. Accordingly, there was no need for registration of the adhesive dispensing means with each depression. Also the method of claim 3 facilitated the

manufacturing process due to the use of a transfer printing process for applying the adhesive, which, contrary to the appellant's assertion, was not a standard step in the technical field of absorbent articles.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments*

Claims 1 to 6 correspond, respectively, to claims 10, 11, 14 to 17 of the patent as granted (claim 3 differs only formally, but not substantially, from granted claim 14 by the insertion of the term "then"). The latter claims are based upon the disclosure of the application as filed (see in particular claims 1, 4, 7, 8, 11 to 14 thereof).

The description is adapted to reflect the restrictions deriving from the amendments made to the claims.

Accordingly, the amendments to not give rise to objections under Article 123(2) and (3) EPC.

3. *Sufficiency of disclosure*

In the Board's communication sent as annex to the summons for oral proceedings the appellant was informed in detail that the Board had taken the submissions presented with the statement of the grounds of appeal into consideration, but was nevertheless of the

provisional opinion that there was no reason which would justify a conclusion different from that reached by the Opposition Division in respect of sufficiency of disclosure. The appellant did not argue this further and the Board sees no reason to differ from its preliminary opinion which is based on the reasons set out below.

As pointed out by the Opposition Division in the decision under appeal (point 2.2) at least one way enabling the person skilled in the art to carry out the method according to claim 1, which corresponds to claim 10 of the patent as maintained by the Opposition Division, and the method according to claim 3, which corresponds to claim 12 of the patent as maintained by the Opposition Division, is clearly indicated in the patent in suit. An example of how to invert the depressions and the raised areas as claimed in claim 1 is given in the description on column 8, lines 3 to 6, where reference is made to a vacuum forming plate (13, see Figure 3). The functioning of the vacuum forming plate is described in detail on column 7, lines 23 to 39. The method of claim 3 requires registration between the adhesive pattern and the means for forming the depressions in which the adhesive will be located (see column 9, 11 to 14). According to the disclosure of the patent in suit, registration can be achieved by means of an electric eye device. The functioning of this device is described in detail on column 9, lines 14 to 22.

It is true that a registration means imposes some kind of limitation for the process itself, but this does not imply that the method cannot be carried out in practice,

in particular in a continuous processing line. Furthermore, the step of inverting the depressions using e.g. a vacuum plate does not present any difficulties for the skilled man, in particular taking into consideration the fact that there are various methods which are generally known for forming, and in particular thermo-forming, plastics materials.

Therefore, the patent in suit meets the requirements of Article 83 EPC.

4. *Inventive step*

4.1 Since novelty of the claimed subject-matter has not been in dispute, the issue to be dealt with is whether the subject-matter of the independent claims 1 and 3 involves an inventive step as required by Article 52(1) and 56 EPC.

4.2 Document D1, cited in paragraph [0005] of the patent in suit, undisputedly represents the closest prior art. In fact this document (see column 1, lines 42 to 46) addresses the same problem of the patent in suit of manufacturing an absorbent product having pressure sensitive positioning adhesive in which the adhesive is adequately protected from unintended contact prior to use without the need for release paper but that allows the user to readily attach the product to an undergarment (see paragraph [0007] of the patent in suit).

Using the wording of claim 1 of the patent in suit, D1 discloses a method of applying and protecting positioning adhesive (12) on an absorbent article (see

Figure 3) having a fluid impervious barrier (16) having a first surface forming a garment facing surface of such article and a second surface opposite said first surface, which method comprises the step of forming adhesive containing depressions in said first surface of said barrier.

According to D1 these depressions are formed by casting a standard conventional baffle material with dimpled indentations in selected areas of the garment facing surface, the opposite surface being flat (see Figure 3). The adhesive is then applied in these indentations (column 3, line 56 to column 4, line 4).

4.3 *Claim 1*

4.3.1 The subject-matter of claim 1 is distinguished from the method of D1 by the following method steps:

(a) deforming portions of said barrier so as to form a plurality of depressions in a pattern on said second surface of said barrier so as to form a corresponding raised area in said first surface of said barrier opposite each of said depressions;

(b) depositing an adhesive onto said raised areas; and

(c) inverting each of said depressions and said raised areas so as to form adhesive containing depressions in said first surface of said barrier and raised areas in said second surface.

The Board agrees with the appellant's view that the distinguishing features do not necessarily facilitate

the manufacture of the absorbent article. In fact, there is no element that would support the conclusion that the distinguishing features lead to a mechanism for forming the depressions which is less complex than the casting mould of D1, which has a flat surface and another opposite surface with raised areas corresponding to the dimpled indentations to be formed in the baffle material and is as such not more complex than the vacuum forming plate referred to in the patent in suit (paragraph [0028]). Furthermore, although in respect of the method of claim 1 the patent in suit refers to the technical effects of easier application of adhesive and absence of a registration step (column 8, lines 9 to 14), these effects are obtained only in connection with the application of adhesive by wiping it onto the raised areas and claim 1 is not limited to such a manner of applying adhesive. In fact, the claim also covers a method in which the adhesive is applied to the raised areas by means of dispensing nozzles, which method requires registration analogously to the method in which adhesive is applied in the depressions as in D1.

Therefore, the distinguishing features result in a different manner of solving the problem stated in the patent in suit (see point 4.2 above) and the objective problem solved by the method of claim 1 is therefore to be seen in providing an alternative method of manufacturing an absorbent product having pressure sensitive positioning adhesive in which the adhesive is adequately protected from unintended contact prior to use without the need for release paper but that allows the user to readily attach the product to an undergarment.

In this respect, the Board cannot follow the appellant's view that the inverting step (feature (c) above) does not solve any objective problem with the prior art. The inverting step is a feature having technical character and contributes to the provision of a method which accomplishes the object of D1 in a different manner (see e.g. T 92/92, point 4.5).

4.3.2 In order to assess inventive step, it is therefore necessary to examine whether the alternative solution in accordance with claim 1 is suggested by the prior art. In the absence of any available prior art which would suggest the sequence of steps (a) to (c) of claim 1 – even the appellant has not referred to any prior art document which discloses or suggests in particular the step (c) of inverting each depressions and raised areas so as to form adhesive containing depressions - it is concluded that the alternative method defined in claim 1 is not obvious to a skilled person.

4.4 *Claim 3*

4.4.1 The subject-matter of claim 1 is distinguished from the method of D1 by the following method steps:

- transferring said adhesive from a reservoir onto a release surface in a pattern, said adhesive capable of bonding to said barrier with greater tenacity than to said release surface;
- transferring said adhesive from said release surface onto said first surface of said barrier in said pattern; and then

– deforming portions of said barrier so as to form a plurality of depressions in a pattern on said first surface of said barrier so as to form a corresponding raised area in said second surface of said barrier opposite each of said depressions.

The use of an adhesive transferring process facilitates the application of adhesive because in contrast to D1 where the adhesive is applied in the depressions (column 4, lines 3, 4), in accordance with the method of claim 3 the adhesive is applied to the fluid impervious barrier when the latter is in a flat state, before it is deformed to provide the depressions. Therefore, the problem solved can generally be seen in facilitating the manufacturing process as argued by the respondent.

4.4.2 The combination of the steps of claim 3 concerning the application of adhesive by transferring it (adhesive printing) and the subsequent step of forming adhesive-containing depressions cannot be regarded as a mere collocation of two unrelated elements as submitted by the appellant because the adhesive is transferred in a pattern and the depressions are formed in the same pattern. The two steps are therefore related by the presence of a pattern which is – necessarily – the same.

Although the Board agrees with the appellant that adhesive printing is generally known and in particular disclosed by D3 (column 2, line 32), there is no suggestion in the prior art to combine adhesive transferring steps with a subsequent step of forming adhesive containing depressions. In accordance with claim 3 the depressions are formed after application of

the adhesive and this is in clear contrast to the teaching of D1 according to which the adhesive is deposited after forming the depressions. In fact, the process of D1 excludes the application of adhesive by transferring it from a release surface, as this requires a corresponding surface of the fluid impervious barrier which is substantially flat.

Therefore, also the method of claim 3 is not obvious to a skilled person in the light of the available prior art.

4.5 For the above reasons it is found that the subject-matter of independent claims 1 and 3 involves an inventive step (Article 56 EPC).

Dependent claims 2, 4 to 6 define further embodiments of the methods of claims 1 and 3 and likewise involve an inventive step.

5. Therefore the patent specification amended in accordance with the respondent's main request forms a suitable basis for maintenance of the patent in amended form.

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 6 filed as auxiliary request II with letter dated 9 December 2004;

description: pages 1 to 4 and 6 filed as auxiliary request II with letter dated 9 December 2004;
page 5 as filed during oral proceedings;

Figures: 1 to 6 filed as auxiliary request II with letter dated 9 December 2004.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau