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D E C I S I O N
of 30 June 2005

Case Number: T 0284/04 - 3.2.6

Application Number: 97922239.5

Publication Number: 0959842

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:
An apertured covering sheet for an absorbent article and a method of producing the covering sheet

Patentee:
SCA Hygiene Products AB

Opponent:
The Procter & Gamble Company

Headword:
-

Relevant legal provisions:
EPC Art. 54(2)

Keyword:
"Novelty (no) - main and first auxiliary requests"

Decisions cited:
G 0004/93

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0284/04 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 30 June 2005

Appellant: (Proprietor of the patent)
SCA Hygiene Products AB
S-40503 Göteborg (SE)

Representative:
Romare, Laila Anette
Albihns Göteborg AB
Box 142
S-401 22 Göteborg (SE)

Respondent(s): (Opponent)
The Procter & Gamble Company
One Procter & Gamble Plaza
Cincinnati
Ohio 45202 (US)

Representative:
Hirsch, Uwe Thomas
Procter & Gamble Service GmbH
Sulzbacher Strasse 40-50
D-65824 Schwalbach am Tannus (DE)

Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted on 8 December 2003 maintaining European patent No. 0959842 in amended form pursuant to Article 102(3) EPC.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Pricolo
K. Garnett

Summary of Facts and Submissions

I. The appeal is from the interlocutory decision of the Opposition Division posted on 8 December 2003 concerning the maintenance in amended form of European patent No. 0 959 842, granted in respect of European patent application No. 97922239.5.

In the decision under appeal the Opposition Division considered that the patent met the requirements of Article 83 EPC but the subject-matter of claim 1 of the patent as granted was not novel in the light of the prior art disclosed by either

D1: EP-B1-0 080 383;

D2: EP-B1-0 164 740; or

D4: DE-A-26 14 160.

Also the subject-matter of independent claim 14 was not novel in view of D1. However, the Opposition Division considered that the subject-matter of the claims according to the auxiliary request filed by the patentee during the oral proceedings held on 22 October 2003 was novel and involved an inventive step.

II. The appellant (patentee) lodged an appeal, received at the EPO on 16 February 2004, against this decision and simultaneously paid the appeal fee. With the statement setting out the grounds of appeal, received at the EPO on 19 April 2004, the appellant requested that the decision be set aside and the patent be maintained as granted, or in amended form on the basis of one of the

first to fourth auxiliary requests filed with the grounds of appeal.

The opponent also lodged an appeal, but withdrew it by letter dated 24 June 2004.

III. In a communication accompanying the summons for oral proceedings pursuant to Article 11(1) of the Rules of Procedure of the boards of appeal, the Board expressed the preliminary opinion that it had to be discussed whether the claimed subject-matter was novel, in particular having regard to the disclosure of documents D1, D2 and D4.

IV. Oral proceedings took place on 30 June 2005.

The appellant maintained the requests filed with the statement of grounds of appeal and confirmed that the second auxiliary request corresponded to the maintenance of the patent in the form allowed by the Opposition Division.

As previously announced by letter dated 24 June 2004, the respondent (opponent) did not attend the oral proceedings. The proceedings were continued without the respondent (Rule 71(2) EPC). In its written submissions, the respondent requested that the appeal be dismissed.

V. Claims 1 of the appellant's main request reads as follows:

"1. A liquid permeable covering sheet (2) for an absorbent article such as a diaper (401), an incontinence protector (501), a sanitary napkin (201), or similar articles, which comprises an apertured

textile material wherein the textile material comprises at least one thermoplastic component, characterized in that the covering sheet (2) has a plurality of holes (4), each hole being surrounded by an essentially liquid impermeable edge (6) which is formed by at least partial melting of thermoplastic component."

Claim 1 of the first auxiliary request reads as follows:

"1. An absorbent article such as a sanitary napkin (201), a diaper (401), an incontinence protector (501), etc, comprising an absorption body (205; 405; 505) enclosed in a covering sheet (202,203; 402,403; 502,503) where at least one portion of the covering sheet consists of a liquid permeable covering sheet (202; 402; 502) of a textile apertured material comprising at least one thermoplastic component, characterized in that the apertured covering sheet (202; 402; 502) has a plurality of holes (204; 404; 504), each hole being surrounded by a liquid impermeable edge (206), wherein the liquid impermeable edge (206) is formed by at least partially melting the thermoplastic component surrounding the holes (204; 404; 504)."

VI. Insofar as they are relevant for the present decision, which only considers the main and first auxiliary request and is only based on the disclosure of document D2, the submissions of the appellant can be summarized as follows:

Document D2 disclosed a method of producing an apertured non-woven fabric whereby apertures were formed by heat embossing a web to create fused regions

and thereafter drafting the web so as to create apertures in the fused regions. In accordance with the teaching of D2, the material surrounding the apertures was fused, but not to such an extent as to produce an essentially liquid impermeable edge surrounding each hole. Moreover, in order to achieve the "fusing" in D2, it was sufficient to heat the material to the softening point, not to the melting point. Accordingly, in D2 "fusing" only meant that the fibrous character of the individual fibres was lost, not that the fibres were melted to form a liquid impermeable edge. Furthermore, the drafting of the fibrous web after embossing, as part of the production method, resulted in holes of ill-defined size, having very differing degrees of fusing around their perimeters, and with some holes having large, non fused edge portions. Also, the liquid impermeable edges thus obtained did not extend through the whole thickness of the sheet. Therefore, the claimed subject-matter was novel over the disclosure of D2.

VII. The respondent submitted that the claims of the appellant's main request were not novel for the reasons set out in the decision of the Opposition Division and that claim 1 of the first auxiliary request lacked novelty over D1, D3 and D5.

Reasons for the Decision

1. The appeal of the patentee, who is the sole appellant after the withdrawal of the appeal of the opponent, is admissible.

2. *Main request*

2.1 Document D2 undisputedly discloses a liquid permeable covering sheet for an absorbent article according to the preamble of claim 1, namely a liquid permeable covering sheet for a sanitary napkin (column 7, line 65), which comprises an apertured textile material wherein the textile material comprises at least one thermoplastic component (see claim 1). D2 moreover undisputedly discloses that the covering sheet has a plurality of holes (10; see claim 1 and Fig. 2).

The appellant submitted that in D2 the fibres were not melted to form a liquid-impermeable edge and that "fusing" only implied that the fibrous character of the individual fibres was lost. D2 generally discloses that the embossing means used for forming the fused regions are at a temperature above the softening point of the fibres (see column 3, lines 22 to 24). However, it also specifically discloses in example 2 (see column 6) the use of an embossing roll heated to a temperature of 171°C, which is above the melting point of 165°C of the thermoplastic polypropylene fibres constituting the sheet. It is true that the temperature reached by the fibres depends not only on the temperature of the embossing roll but also on the roll speed, as submitted by the appellant. However, due to the fact that the temperature of the embossing roll is above the melting temperature of the polypropylene, and the fact that the contact time between the roll and the fibres must be such as to heat the fibres at least above their softening temperature of 150°C, it is unavoidable that a certain degree of melting ("partial melting", i.e. at least in some points) occurs in the fibrous material

which, after the drafting step, forms the edge of the hole.

Even if the above-mentioned argument of the appellant were correct and it was thus accepted that in D2 no melting of the thermoplastic component takes place, but only a "fusing" at a temperature above the softening temperature, the feature that the fibres are melted would not distinguish the sheet of claim 1 from that of D2. Indeed, in accordance with the teaching of D2, the fusing is such as to provide a perimeter of fused thermoplastic material in which the original fibre formation is no longer present (see column 3, lines 23 to 15). If the fibres are melted rather than fused, then the identical result in terms of technical features of the finished product, i.e. the original fibre formation no longer being present, is obtained, due to the thermoplastic nature of the material.

Moreover, the fact that the original fibrous character is lost (see also column 5, lines 29 to 31) implies necessarily that an edge is obtained which is impermeable, at least in comparison to the zones where the fibrous formation is still present.

Furthermore, claim 1 of D2 clearly states that each aperture is surrounded by a perimeter of fused material. Reference is also made to column 7, lines 35 to 37, referring to figure 2, which shows a web after the drafting step. Contrary to the appellant's view, it is clear from the photographs of Figs. 1-3 that the drafting is not such as to disrupt the fused perimeter.

Accordingly, D2 also discloses the feature of claim 1, namely that each hole is surrounded by an essentially liquid impermeable edge which is formed by at least partial melting of the thermoplastic component.

2.2 The appellant further submitted that the drafting of the fibrous web in accordance with the production method of D2 resulted in holes of ill-defined size and having very differing amounts of fusing around their perimeters. This might be true but has no relevance for the question of novelty of the subject-matter of claim 1 since claim 1 does not include any specific requirement for the size of the holes and/or for the degree of melting and/or impermeability of the edges of the holes. Furthermore, different amounts of fusing are also obtained as a result of the method of the patent in suit using heated needles, since the amount of fusing also depends on the fibre distribution about the needles, which is variable.

Analogous considerations apply in respect of the appellant's remark that the liquid impermeable edge obtained in D2 does not extend through the whole thickness of the sheet, since the claim does not specify how much the impermeable edge must extend in the direction of the thickness of the sheet.

2.3 Therefore, the subject-matter of claim 1 of the patent as granted (main request) is not novel (Article 52(1), 54(2) EPC) over the disclosure of D2. Accordingly, the appellant's main request cannot be allowed.

3. *First auxiliary request*

Using the wording of claim 1, D2 discloses a sanitary napkin having a covering sheet (napkin facing; column 7, line 65) and an absorption body (which is an essential feature of any sanitary napkin) enclosed in said covering sheet.

Claim 1 further requires that the covering sheet of the absorbent article (sanitary napkin) has the features defined in claim 1 as granted of the patent in suit. As explained above (point 1), the covering sheet of D2 has all these features.

The appellant pointed out that claim 1 requires that each hole is surrounded by a liquid impermeable edge rather than by an "essentially" liquid impermeable edge as defined in claim 1 of the patent as granted. However, the absence of the term "essentially" in claim 1 cannot be regarded as implying a clear limitation to the claimed subject-matter in terms of liquid impermeability of the edge. In fact, the impermeability of the edge is only due to the melting of the fibres, which according to claim 11 can be a "partial melting" (as in claim 1) and not necessarily a complete melting.

Therefore, since the subject-matter of claim 1 of the auxiliary request lacks novelty (Article 52(1), 54(2) EPC) over the disclosure of D2, the first auxiliary request also cannot be allowed.

4. *Second auxiliary request*

The second auxiliary request, that the patent be maintained on the basis of the claims as allowed by the Opposition Division, amounts in effect to a request to dismiss the appeal. In such case the interlocutory decision, which may not be challenged as the patentee is the sole appellant (see G 4/93), becomes final. Therefore that request need not be considered. Nor is it necessary to consider the third and fourth auxiliary requests, which are of lower order of preference.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau