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**Datasheet for the decision
of 18 June 2009**

Case Number: T 0208/08 - 3.2.06

Application Number: 01971232.2

Publication Number: 1318781

IPC: A61F 13/537

Language of the proceedings: EN

Title of invention:

Acquisition distribution layer having void volumns for an
absorbent article

Patentee:

Tredegar Film Products Corporation

Opponent:

Pantex Sud S.r.l.

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 84, 83

Relevant legal provisions (EPC 1973):

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Keyword:

"Main request: added subject-matter, clarity"
"First auxiliary request: enabling disclosure"

Decisions cited:

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Catchword:

-



Case Number: T 0208/08 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 18 June 2009

Appellant: Tredegar Film Products Corporation
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 27 November 2007
revoking European patent No. 1318781 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Alting Van Geusau
Members: G. de Crignis
K. Garnett

Summary of Facts and Submissions

- I. European patent No. 1 318 781 granted on application No. 01971232.2, was revoked by the opposition division by decision announced during the oral proceedings on 15 November 2007 and posted on 27 November 2007.
- II. The decision of the opposition division was based on the finding that claim 1 of the main request was not allowable for formal reasons (Article 123(2) EPC) and the subject-matter of claim 1 of the auxiliary request was not sufficiently disclosed (Article 83 EPC) in particular with respect to the lack of a method to determine the total void volume space.
- III. On 23 January 2008 the appellant (patent proprietor) filed a notice of appeal against this decision and paid the appeal fee. The statement of grounds of appeal was filed on 4 April 2008 together with the main request, which was identical to the one before the opposition division, and five auxiliary requests.
- IV. In a communication in preparation for the oral proceedings according to Article 15(1) of the Rules of Procedure of the Boards of Appeal dated 29 December 2008, the Board gave its preliminary opinion on the case, generally agreeing with the objections which had led to the decision to revoke the patent.
- V. Oral proceedings were held on 18 June 2009. The appellant requested that the decision under appeal be set aside and that the European patent be maintained on the basis of the main request filed with the grounds of

appeal, alternatively on the basis of the first auxiliary request filed during the oral proceedings. The respondent requested that the appeal be dismissed. For further substantiation of its arguments, the respondent submitted a letter concerning the determination method described in the communication of the appellant dated 11 June 2009.

Claim 1 of the main request:

"An absorbent article comprising: a topsheet; an absorbent core material; and an acquisition distribution layer between said topsheet and said absorbent core material, wherein said acquisition distribution layer is a three dimensional formed film with apertures having a female side and male side, wherein said acquisition distribution layer defines a void volume space including female side voids and male side voids, and wherein a total void volume space is greater than $750\text{cm}^3/\text{m}^2$, and said male side voids provide space for unabsorbed fluid to flow over said absorbent core material without contacting said topsheet."

Claim 1 of the new first auxiliary request:

"An absorbent article comprising: a topsheet; an absorbent core material; and an acquisition distribution layer between said topsheet and said absorbent core material, wherein said acquisition distribution layer is a three dimensional formed film with apertures, said film having a female side and male side, wherein said female side is a body facing side and said male side is a garment facing side, and

wherein said acquisition distribution layer has a plurality of cells, wherein adjacent cells each have an aperture that allows insult fluids to be rapidly acquired through the acquisition distribution layer, and wherein said cells have a shape selected from a group comprising hexagonal, circular, oval, elliptical, and polygonal, wherein said acquisition layer defines a void volume space of female side voids defined by the apertures in the film and male side voids, and wherein a total void volume space is greater than $750\text{cm}^3/\text{m}^2$, and said male side voids provide space for unabsorbed fluid to flow over said absorbent core material without contacting said topsheet, and wherein the void volume space on said male side is greater than $500\text{cm}^3/\text{m}^2$."

VI. In support of its requests the appellant essentially relied upon the following submissions:

The amendments of the subject-matter of claim 1 of the main request were disclosed in the description as originally filed (Article 123(2) EPC) and met the requirements of Article 84 EPC. In particular it was clear for the skilled person that the female side voids were represented by the apertures.

The amendments of the subject-matter of claim 1 of the first auxiliary request limited the claimed subject-matter to the embodiment shown in Figures 4 and 5 of the patent in suit. For such a regularly patterned formed film the determination of the total void volume and the female side void volume via microphotographs and empirical calculation represented the commonly used method which was referred to in paragraph [0063] and

Table 3 of the patent in suit. Accordingly, the patent in suit was sufficiently disclosed.

VII. The respondents essentially argued as follows:

Although it was clear for the skilled person that the female side voids were represented by the apertures, the subject-matter of claim 1 of the main request was neither clear (Article 84 EPC) nor was such a combination disclosed in the description as originally filed (Article 123(2) EPC).

Concerning the subject-matter of claim 1 of the first auxiliary request, the requirements of Article 83 EPC were not met. With respect to the determination of the void volume space, the patent in suit referred to empirical calculations in paragraph [0063]. No clear and unambiguous disclosure with regard to the conditions and limitations of such calculations was derivable. Samples 1 and 4 of Table 3 were listed with a total void volume which was larger than theoretically possible for the indicated loft/thickness. Accordingly, the patent in suit did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

The appellant had relied upon various different determination methods during the proceedings and accordingly was not sure itself which determination method should be applied. The further cited method relying on vacuum/air determination was also neither disclosed nor clear.

Reasons for the Decision

1. The appeal is admissible.
2. *Main Request - Article 123 EPC*
 - 2.1 When compared to the granted claim 1, claim 1 defines additionally
 - (i) the three dimensional film being a "formed" film;
 - (ii) the apertures having a female side and a male side;
 - (iii) the void volume space including female side voids and male side voids;
 - (iv) the total void volume space being greater than $750\text{cm}^3/\text{m}^2$;
 - (v) the male side voids providing space for unabsorbed fluid to flow over said absorbent core material without contacting said top sheet.
 - 2.2 The disclosure in the originally filed PCT-application can be found for
 - point (i) on page 2, line 20;
 - point (iv) on page 21, line 22;
 - point (v) on page 2, lines 23 - 26 and page 17, line 15.
 - 2.3 No literal disclosure of the amendments specified in points (ii) and (iii) is present. The Figures disclose a film having a female side and a male side consistent with the literal disclosure. With regard to the apertures, since they are voids, a definition of a female side or male side of a void is not clear.

2.4 Accordingly, additionally to there being no disclosure in this respect (Article 123(2) EPC), such definitions are not clear (Article 84 EPC) since the boundaries between the female side and the male side apertures are not clear. Hence, the subject-matter of claim 1 of the main request neither meets the requirements of Article 123(2) EPC nor those of Article 84 EPC.

3. *First Auxiliary Request*

3.1 Amendments - Article 123(2) EPC

When compared to the originally filed claim 1 of the PCT publication, the subject-matter of claim 1 defines additionally:

- (a) an acquisition distribution layer between said topsheet and said absorbent core material - this is disclosed on page 2, lines 18/19 of the PCT-publication;
- (b) said acquisition distribution layer being a three dimensional formed film with apertures, said film having a female side and a male side - this is disclosed on page 2, lines 19 - 21 of the PCT-publication and on page 11, lines 1 to 5;
- (c) said female side being a body facing side and said male side being a garment facing side - this is disclosed on page 2, line 21 and on page 11, lines 1 to 5;
- (d) said acquisition distribution layer having a plurality of cells, wherein adjacent cells each

have an aperture that allows insult fluids to be rapidly acquired through the acquisition distribution layer, and wherein said cells have a shape selected from a group comprising hexagonal, circular, oval, elliptical, and polygonal - this is disclosed on page 10, lines 20 to 31 with regard to the first embodiment shown in Figures 4/5 and claims 7 and 11;

- (e) said acquisition layer defining a void volume space of female side voids defined by the apertures in the film and male side voids - this is disclosed in Figures 4/5 relating to the first embodiment - wherein apertures 60 represent the female side voids;
- (f) a total void volume space being greater than $750\text{cm}^3/\text{m}^2$ - this is disclosed on page 21, line 22 as applying generally for the invention;
- (g) said male side voids provide space for unabsorbed fluid to flow over said absorbent core material without contacting said topsheet - this is disclosed on page 2, lines 23 to 26;
- (h) the void volume space on said male side being greater than $500\text{cm}^3/\text{m}^2$ - this is disclosed on page 19, line 25 as applying generally for the invention.

Accordingly, the subject-matter of claim 1 is disclosed in the description as originally filed generally and in the disclosure concerning the first embodiment and the related Figures 4 and 5. In view of these amendments,

the scope of claim 1 refers to the first embodiment shown in Figures 4 and 5, as agreed upon by the parties. Accordingly, the requirements of Article 123(2) EPC are met.

3.2 Amendments - Article 84 EPC - Scope of the claim

3.2.1 With regard to the requirements of Article 84 EPC the subject-matter of claim 1 is clear. Nevertheless, for the assessment of the objections raised in these proceedings, it is necessary to comment on the scope of the claim with regard to the following issues:

3.2.2 The female side void volume is represented by the volume of the apertures. This meaning was applied by the parties in their written and oral arguments for all requests. In view of Figures 4 and 5, which represent the claimed embodiment, the skilled person would also understand this to be the position.

3.2.3 A single regular and uniform cell pattern of one shape has to be chosen from the shapes specified in claim 1, as made clear by the words "... said cells have **a** shape ..." (emphasis added). Again such a regular uniform cell pattern is represented in Figures 4 and 5.

3.2.4 Samples 1 to 3 of the patent in suit are disclosed (page 10, lines 1 to 8) as samples having an acquisition distribution layer similar to that shown in Figure 3. Samples 1 and 2 are prior art films in accordance with

D1 (US-H1670).

Their total void volume is below the claimed total void volume space. Sample 3 has an acquisition distribution layer with a male side void volume flow area similar to that shown in Figures 4 and 5 and a markedly greater loft than the films having the prior art design, i.e. samples 1 and 2 (paragraphs [0059] and [0061]).

Sample 3 represents the only disclosed sample according to the now claimed invention because it has a total void volume space and a male side volume space in the claimed range. Sample 4 no longer represents a sample according to the invention because its male side volume is not in the claimed range.

3.2.5 The calculations based upon the prior art films having capillaries forming circular cones are suitable for disclosing or instructing the skilled person how to calculate the total void volume space for the claimed films with geometrically shaped cells. This is consistently defined in paragraph [0063] and exemplified by the calculations in:

A6 void volume calculations based on examples 1 to 3 and 4a to 4c of

A2 US-A-3,929,135 as well as by

D7 Standard Handbook For Mechanical Engineers, ed. T. Baumeister, L.S. Marks; 7th edition, 1967, McGraw-Hill, page 2-20 and the annexed calculation referring to A6, example 2.

4. *Sufficiency*

- 4.1 The opposition division based its refusal of the first auxiliary request upon the lack of a clear teaching of how to determine the "total void volume space".
- 4.2 Unlike the subject-matter discussed before the opposition division, the claimed subject-matter is now limited to the first embodiment specified in the patent in suit. Due to this limitation of the claimed subject-matter to a regularly patterned formed film, a determination of the "total void volume space" and the "female side void volume" is possible.
- 4.3 As a suitable technique for determining and measuring the void volume spaces of such films of substantially identical apertures, the patent in suit discloses the employment of microphotographs and empirical calculations (paragraph [0063]). Table 3 of the patent in suit provides data (loft, mesh, cells/m² of film, female side volume, male side volume and total void volume) for such films. Samples 1 to 4 of Table 3 include sample 3 which falls within the scope of the claim - see point 3.2.4 above.
- 4.4 Evidence of the general knowledge of the skilled person in this respect is additionally provided by D7 and the annexed calculation concerning example 2 of A2 which was submitted by the appellant. According to this citation, the female side void volume can be calculated by assessing a frustum of conical shape. The calculation of the total void volume per unit area of film *via*:
- $$\text{length} \times \text{width} \times \text{loft} - \text{volume of film} = \text{total void volume}$$

represents basic general knowledge. The male side void volume can be calculated by subtraction of the female void volume from the total void volume. Accordingly, such an empirical calculation method represents a commonly used determination method applied to a well-defined structure.

4.5 The capability of the skilled person to carry out such empirical calculations of void volume spaces was moreover demonstrated by the respondent via A6, concerning example 2 of A2. The results are consistent with the results of the appellant for same example 2 in the calculation annexed to D7.

4.6 In view of the above evidence of the consistency of such empirical calculations, the respondent's argument concerning the total void volume provided in Table 3 for sample 1 and sample 4 being higher than theoretically possible is beside the point. Although no explanation for this discrepancy has been given, the skilled person would not generally be prevented from carrying out correct calculations by these clearly erroneous examples.

4.7 Furthermore, the respondent argued that no reliable results would be obtained for the claimed parameters when applying such empirical methods, in particular in view of the two submitted microphotographs at 50x magnification of two prior art acquisition layers

A4 microphotographs Tredegar film CR 02/11; and

A5 microphotographs of film of Pantex Srl from 1998.

These microphotographs demonstrate that the form of the apertures is highly irregular. However, these microphotographs cannot convincingly prove that the skilled person could not carry out the necessary empirical calculations in particular in view of the void volume of layers in accordance with claim 1.

4.8 The respondent's reference to the appellant's inconsistency with regard to the appropriate determination method during the prosecution of the case does not meet the point. The patent in suit discloses empirical calculations and it has been convincingly demonstrated that such calculations represent a commonly known method which the skilled person would apply. Therefore, all arguments with regard to any other methods are irrelevant.

4.9 Accordingly, the skilled person can carry out the invention as regards the determination of the total void volume space and the female side void volume for the claimed regular formed film and can calculate via subtraction the male side void volume. Hence, the absorbent article is defined in such a way that it can be obtained or verified by the skilled person without any undue difficulty. The requirements of Article 83 EPC are thus met.

5. *Remittal to the first instance*

Hence, the only ground given in the contested decision which prejudiced the maintenance of the granted patent no longer exists and the decision of the department of first instance must be set aside. However the further grounds for opposition have not been examined by the

opposition division. In order to give the parties the opportunity to prosecute their rights at two instances of jurisdiction, the board considers that the department of first instance should examine whether any other ground of opposition prejudices the maintenance of the patent in the currently amended form. The board thus remits the case to the opposition division for further prosecution.

It should be noted that the amendments in current claim 1 lead to the conclusion that, in the event that the patent is maintained in the subsequent proceedings, the description needs to be adapted accordingly. Since during the further proceedings before the opposition division the subject-matter of claim 1 may be limited further, no such adaptation appears to be expedient now. Erroneous statements should also be corrected at such stage (concerning table 1 and its unit for the loft, as well as the number of D2 in paragraph [0063]).

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 for further prosecution.

The Registrar:

The Chairman:

M. Patin

P. Alting van Geusau