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**Datasheet for the decision
of 5 March 2008**

Case Number: T 0367/07 - 3.2.06

Application Number: 99911986.0

Publication Number: 1073390

IPC: A61F 13/15

Language of the proceedings: EN

Title of invention:

High liquid suction absorbent structures

Patentee:

THE PROCTER & GAMBLE COMPANY

Opponent:

Kimberly-Clark Worldwide, Inc.

Headword:

-

Relevant legal provisions:

EPC Art. 83

Relevant legal provisions (EPC 1973):

-

Keyword:

"Disclosure - not enabling - undue burden - sufficiency (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 0367/07 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 5 March 2008

Appellant: THE PROCTER & GAMBLE COMPANY
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 02 January 2007
revoking European patent No. 1073390 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- I. European patent No. 1 073 390 granted on application No. 99911986.0, was revoked by the opposition division by decision announced during the oral proceedings on 14 December 2006 and posted on 2 January 2007.
- II. The decision of the opposition division was based on the finding that the subject-matter of claim 1 was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC) as in particular the skilled person was confronted with an undue burden choosing a wrap sheet falling within the scope of claim 1.
- III. With its letter dated 2 March 2007 the appellant (patent proprietor) filed an appeal against the decision of the opposition division and on the same day paid the appeal fee. With its letter of 10 May 2007 the statement of grounds of appeal was filed, together with a main request to set aside the decision of the opposition division, to remit the case to the opposition division for reconsideration of the sufficiency of the patent and to reimburse the appeal fee in view of a substantial procedural violation said to have been committed by the opposition division. In the event that the Board found that there had been no substantial procedural violation it was auxiliarily requested to maintain the patent as granted and to remit the case to the opposition division for consideration of the remaining grounds of opposition.
- IV. In a communication in preparation for the oral proceedings pursuant to Article 11(1) of the Rules of

Procedure of the Boards of Appeal dated 11 December 2007, the Board indicated that in the circumstances of the case reimbursement of the appeal fee under Rule 67 EPC did not appear to be equitable. As regards the subject-matter of the claims it was noted that the methods of measurement in relation to the claimed parameters were not included in claim 1, and since various methods existed, in particular for the determination of a liquid strike-through value, what these parameters actually represented needed to be discussed. Moreover, the reliability of the available data also needed to be discussed at the oral proceedings.

- V. Oral proceedings were held before the Board on 5 March 2008, during which the appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request filed during the oral proceedings, alternatively on the basis of the first or second auxiliary requests filed with the letter dated 5 February 2008.

The respondent requested the dismissal of the appeal.

Claim 1 according to the main request reads:

"Absorbent structure, comprising an ultimate fluid storage member, comprising superabsorbent material at a concentration of at least 40% of the total weight of said ultimate fluid storage member, said material having a PUP value as determined according to the method of paragraphs [0108] to [0118] of at least 23 g/g, and a SFC value as determined according to the method of paragraphs [0079] to [0107] of at least 30×10^{-7} cm³sec/g, further comprising a non-woven wrap sheet

comprising fibers having a fiber diameter corresponding to less than 1.2 dTex, said sheet is in direct fluid communication with said storage member, characterized in that said wrap sheet has a strike-through time in the second load as determined according to the modified EDANA method, using 10 layers of pick-up filter paper, according to paragraph [0044], of less than 60 seconds."

The subject-matter of claim 1 according to the first and second auxiliary requests differs from the subject-matter of claim 1 of the main request in that the strike-through time is further limited to "less than 30 seconds" according to claim 1 of the first auxiliary request and to "less than 10 seconds" according to claim 1 of the second auxiliary request.

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

The subject-matter of claim 1 of the main request was formally acceptable. The amendments were based upon the disclosure as originally filed which was identical to the wording in paragraph [0044] of the patent in suit. The modified EDANA method specified therein represented a clear and complete test method and was meaningful with regard to the identification of appropriate wrap sheets. An absorbent article having all the claimed features was represented in Table 1.

The decision of the opposition division turned on two issues: the first one was how to identify suitable wrap sheets in view of the characteristics of the materials/layers, the second one was whether the

disclosed wrap sheet comprised any fibres having a fibre diameter corresponding to less than 1.2 dTex.

With regard to the latter feature, the declaration submitted with letter of 5 February 2008 set out that the Corovin products specified in paragraphs [0047] and [0049] of the patent in suit indeed comprised fibres having a diameter of less than 1.2 dTex.

With regard to the identification of suitable wrap sheets via their composition and characteristics, such materials were well-known to the skilled person. In this respect the documents already cited during the opposition procedure

- D1 US-A-4 360 022
- D5 US-A-4 338 371
- D6 US-A-3 987 792
- D7 EP-A-0 212 618 and
- D8 US-A-4 699 619

pointed at suitable layers having hydrophilic finishes or surfactants. Such materials were commercially available and could be tested in the claimed strike-through test and no further guidance was needed. Thus, there was no undue burden for the skilled person. The various respective test methods applied in the cited prior art did not differ from the claimed test method to such an extent that the results would be misleading. They gave sufficient information to the skilled practitioner for him to choose sheets with a good chance of success in the claimed strike-through test method.

The auxiliary requests should be admitted. The claimed ranges were further narrowed.

VII. The respondent essentially argued as follows:

The subject-matter of claim 1 lacked a proper basis under Article 123(2) EPC. Essentially two test methods for the strike-through time were specified in the description. The test procedure according to paragraph [0044] applied to wrap sheet materials whereas the subject-matter of claim 1 referred to an absorbent structure for which another test was disclosed. The strike-through time indicated in paragraphs [0048] and [0049] was not linked to the test procedure set out in paragraph [0044] and concerned a specific material. Furthermore, the materials tested according to paragraphs [0048] and [0049] were not linked to the absorbent articles tested according to Table 1.

Concerning sufficiency of disclosure, the subject-matter of claim 1 referred to a test procedure for liquid strike-through time which differed from similar test procedures as set out in the prior art. The single exemplary disclosure for one suitable commercially available sheet in the patent in suit *prima facie* did not cover the whole scope of the claimed range.

Furthermore, there were transient examples where the claimed method *a priori* did not appear suitable for the determination of the strike-through time and it would be pure speculation whether such a wrapsheet fell within the claimed range. Further, the reference in paragraph [0049] of the patent in suit to a "more permanent hydrophilic finish or surfactant" was not followed by specific information about how much or which chemical modification should be applied in order

to arrive at a value in the claimed range, nor was such information present in the cited prior art.

No information was disclosed about the modification of the wrap sheet in order to obtain less than 60, 30, 10, 5 seconds as claimed in claim 1 and in dependent claims 5 to 7. For this reason alone, the auxiliary requests 1 and 2 should not be admitted.

Reasons for the Decision

1. The appeal is admissible.

2. *Formal acceptability of the Main Request*

With respect to claim 1 as originally filed, claim 1 of the main request additionally includes references to the determination methods. These methods are disclosed on page 21 to 30 (SFC-value), on page 30 to 34 (PUP-value) and on page 10, second paragraph (strike-through time) of the WO-publication.

Concerning the disclosure of the combination of a wrap sheet being in direct fluid communication with said storage member, the Board is satisfied with the declaration of the appellant in its letter of 5 February 2008 that the wrap sheet A2 of Table 1 is identical to the wrap sheet disclosed in paragraph [0049]. In view of this declaration, a link between an absorbent article and a wrap sheet having the claimed features is also available in the form of example C2/A2 in Table 1. Therefore, the requirements of Article 123(2) EPC are met.

3. *Sufficiency of disclosure (Article 83 EPC)*

- 3.1 The claimed absorbent structure comprises a storage member which comprises a superabsorbent material and a non-woven wrap sheet which is in direct fluid communication with said storage member. The non-woven wrap sheet comprises fibres having a fibre diameter corresponding to less than 1.2 dTex. In the characterising portion of claim 1 the wrap sheet is characterized via its strike-through time of less than 60 seconds. This strike-through time is limited to the one determined according to the modified EDANA method as disclosed in the patent in suit.
- 3.2 In the patent in suit, the single exemplary suitable wrap sheet material is specified as MB 2000 HPC2, commercially available from BBA COROVIN, Peine, Germany with a strike-through time in the second gush of not more than about 2.5 seconds. The declaration submitted with the letter of 5 February 2008 states that this product is a bi-layer comprising a spun-bonded polypropylene web and a melt-blown polypropylene web, that this bi-layer web comprises polypropylene fibres having a diameter of less than 1.2 dTex and that a durable surfactant was used for making the web hydrophilic. Neither the nature or structural characteristics of the durable surfactant, nor the amount of fibres having the mentioned diameter or their location in the meltblown or spun-bonded web is specified. Thus, a single example is disclosed without the details which would allow the skilled person to understand on what basis the strike-through value could be adapted over the claimed range. Nor is any general

teaching with regard to technical details of the claimed non-woven wrap sheet disclosed in the patent in suit.

- 3.3 Sufficiency of disclosure presupposes that the skilled person is able to obtain substantially all embodiments falling within the ambit of the claims.

The scope of claim 1 covers wrap sheets such as

- spunbond, carded and meltblown webs
- laminates of webs
- fibrous webs combined with perforated film materials; these wrap sheets having
- fibres of various structural compositions
- fibre compositions without any lower or upper limit of the amount of fibres having a fibre diameter corresponding to less than 1.2 dTex
- materials which are permanently or non-permanently hydrophilized.

The feature which is related to the strike-through time constitutes the characterising portion of the claim and is thus the one that distinguishes the claimed article from those known from the prior art. The claimed range of "less than 60 seconds" is very broad when compared to the single embodiment in which this value is 2.5 seconds. The question is, whether the single example, having a strike-through time of "not more than about 2.5 seconds", is sufficient to enable the skilled person to carry out the invention over the whole scope claimed.

- 3.4 The appellant considered that neither further examples nor further specific technical details were necessary

since the skilled person could fully rely upon the relevant disclosure in the cited prior art.

- 3.5 In principle, however, in accordance with Article 83 EPC, the patent itself should disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art - of course, taking the general knowledge of the skilled person into account in this exercise. For this reason, an argument essentially relying on the "prior art" is only acceptable when in the prior art there can be found clear and complete relevant information which in fact corresponds to such general knowledge of the skilled person working in this technical field.
- 3.6 In the cited prior art, various non-woven layers comprising fibres having a diameter within the claimed range and having a finish/surfactant are disclosed. The cited passages in the prior art refer to
- (a) the chemical nature of the surfactants or finishes used (D5: example 1; D6: p. 3, l. 5)
 - (b) the percentage of surfactant or finish applied to particular nonwoven webs (D4: claims; D7: Example 1)
 - (c) the nonwoven layers partly comprising fibres having a diameter within the claimed range (D1: col. 2, l. 56 - 58; D4: page 7, l. 9/10; D5: p. 28, l. 36)
 - (d) particularly low strike-through times in the first/second/third load (D4: page 22/23; D5: page 50; D8: Fig. 1; D7: Table 1).
- 3.7 However, in the cited prior art there is no information available explaining how to combine or adapt the

elements (a) to (c) in order to achieve a specific resultant strike-through time of a wrap sheet and, furthermore, the strike-through times noted in the cited prior art are determined according to a different procedure as compared to that disclosed in the patent in suit.

In this respect, the influence of

- meltblown (or other) fibres / layers
- combination with further fibres/layers
- filament properties: crimped/texture/degree of hydrophilicity/fibre diameters)
- amount of fibres in the sheet/layers having a fibre diameter of less than 1.2 dTex
- application of the surfactant/finish on the surface or directly to the polymer (blend)
- kind of surfactant/finish (anionic, cationic, non-ionic/permanent or non-permanent)
- percentage of surfactant/finish
- manufacturing conditions (influence of cooling, drying and further steps)
- combination with further agents (such as for example lubricants)

on the resultant strike-through time is not discussed in the cited prior art at all.

3.8 Thus, the skilled person is faced with a variety of factors which will influence the strike-through time of the resultant wrap sheet. No guidance about these is available, whether in general or by reference to a particular example. Furthermore, when considering transient surfactants/finishes the reliability and reproducibility of a test procedure concerning the

strike-through time would additionally need to be assessed.

3.9 Moreover, in the cited prior art, the strike-through time is tested differently. The claimed EDANA method includes the modification that after the first liquid strike-through determination the samples are removed and rinsed for 30 seconds in 400 ml of de-ionized water and subsequently dried before the next strike-through determination is carried out. Such a rinsing step necessarily has a substantial effect and will significantly influence the test results, *a fortiori* for transient surfactants/finishes. No evidence is present that the results recorded in the prior art would correspond with the results obtained by the claimed modified EDANA method.

3.10 It is true that in the prior art strike-through tests are disclosed and show that the skilled person knew of non-woven materials having permanent or non-permanent hydrophilic finishes or surfactants. However, this is not the point at issue. The cited passages in the prior art do not give any information to the skilled person about how to modify those sheets in order to change the strike-through behaviour in any particular direction. Thus, when considering the prior art, no clear and complete information can be found about how to obtain a non-woven sheet having a strike-through time in the claimed range.

3.11 In order to carry out the invention, the skilled person needs at least some guidance about how to obtain such a wrap sheet. Where the skilled person can only do this by using trial and error in an area with multiple

variables whose interaction is not known, this amounts to an undue burden.

- 3.12 In the present case, it is not to be expected that the teaching of the patent in suit together with a reasonable amount of trial and error plus the application of common general knowledge - including the disclosure of the cited prior art discussed above - would lead a skilled person directly towards success through the evaluation of any initial failures. Therefore, the patent in suit is not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. In view of the huge variety of possible materials (webs, laminates, fibres, superabsorbents, surfactants, finishes) and their varying characteristics and huge application range, the Board agrees with the finding of the opposition division, namely that testing of wrap sheets with the modified test method in order to arrive at the claimed subject-matter represents an undue burden for the skilled person. Therefore, the invention is not sufficiently disclosed and does not meet the requirements of Article 83 EPC.

4. *Auxiliary Requests 1 and 2*

The subject-matter of claims 1 of the first and second auxiliary requests refers to a more limited time interval for the liquid strike-through time. They refer to "less than 30 seconds" and to "less than 10 seconds". The limitation to such smaller ranges, however, does not overcome the principal obstacles set out above. Hence, these late-filed requests are *a priori* not

considered to overcome the raised objections and consequently are not admitted into the proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

M. Patin

P. Alting van Geusau