Datasheet for the decision
of 6 December 2006

Case Number: T 0590/05 - 3.2.06
Application Number: 94916673.0
Publication Number: 0774946
IPC: A61F 13/46
Language of the proceedings: EN
Title of invention: ABSORBENT ARTICLE
Patentee: KIMBERLY-CLARK WORLDWIDE, INC.
Opponent: The Procter & Gamble Company
SCA Hygiene Products AB
Headword: -
Relevant legal provisions: EPC Art. 52(1), 54(1), 56, 83, 84, 100(a), 100(b), 123(2)
Keyword: "Admissibility of amendments - yes"
"Enabling disclosure - yes"
"Novelty and inventive step - yes"
Decisions cited: -
Catchword: -
Case Number: T 0590/05 – 3.2.06

DECISION
of the Technical Board of Appeal 3.2.06
of 6 December 2006

Appellant: SCA Hygiene Products AB
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Composition of the Board:
Chairman: P. Alting van Geusau
Members: G. Kadner
K. Garnett
Summary of Facts and Submissions

I. The mention of grant of European patent No. 0 774 946 with 15 claims in respect of European patent application No. 94 916 673.0 claiming a US-priority from 12 May 1993 and filed on 5 May 1994 was published on 4 April 2004.

II. Two notices of opposition were filed against this patent with requests for revocation based on the grounds of Article 100(a) EPC (Opponent 01 and Opponent 02) and 100(b) EPC (Opponent 02).

By decision posted on 4 March 2005 the Opposition Division maintained the patent as amended with claims 1 to 13.

The Opposition Division was of the opinion that claim 1 met the requirements of Articles 123(2), (3), 84, 83 and that its subject-matter was novel and inventive when compared with the relevant prior art.

III. Notice of appeal was lodged against this decision by the Appellant (Opponent 02) on 4 May 2005 together with payment of the appeal fee.

The statement of grounds of appeal was filed on 11 July 2005.

IV. In a communication pursuant to Article 11(1) of the Rules of Procedure of the Boards of Appeal dated 26 September 2006 sent together with the summons to oral proceedings the Board stated that according to its preliminary opinion it was questionable whether the test procedure for determining the wicking capability of
absorbent articles described in the patent in suit was sufficiently clear and complete in order for it to be carried out by a skilled person. Furthermore novelty and inventive step of the subject-matter claimed would have to be discussed.

V. Oral proceedings were held on 6 December 2006. From the documents cited in opposition proceedings the following were considered:

E1: WO-A-91/14 415  
E10: GB-A-2 089 214  
E12: GB-A-1 308 935  

The Appellant requested that the decision under appeal be set aside and that the European patent No. 0 774 946 be revoked.

The Respondent (Patentee) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claims and description filed during the oral proceedings and Figures 1 to 5 of the patent as granted.

Claim 1 reads as follows:

"A sanitary napkin (10; 10') comprising an absorbent (18; 26) including first and second members (18, 20; 30, 32; 44, 46) each having a predetermined width, said first member (18; 30; 44) having a width which is greater than the width of said second member (20; 32; 46), said
second member positioned below at least a portion of said first member, said second member having a higher wicking capability in the x and y directions than said first member wherein said wicking capability of said first and second members is expressed as a ratio of length of a fluid stain in said second member to the length of a fluid stain in said first member, said ratio being at least 1.7 when the length of said fluid stain in said second member is at least 76 mm, the stain length being measured 5 minutes after a 3 ml insult using the test procedure described in paragraphs [0030] to [0040], and in that said first member is either a co-form being an air-formed blend of meltblown fibers and pulp fibers or an air-laid fabric formed of 100% virgin softwood with a latex acrylic binder, and in that said sanitary napkin is void of superabsorbent material, and wherein said napkin has a thickness of less than about 5 mm."

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

The invention was not disclosed in a manner sufficiently clear and complete for it to be carried by a skilled person. In particular the "higher wicking capability" of the second member could not be determined by a single measurement of the stain length 5 minutes after the fluid insult. The test method itself was unclear and would not lead to repeatable results, as had been shown in E22 (protocol of a test carried out by two test engineers of the Appellant). Moreover, it was very difficult to peel apart the members of the test samples and to reassemble them again in precisely the same positions. A consistent measurement of fluid stain
length was therefore not possible because it was very difficult to avoid a shift in the positions of the members. The use of a variable quantity of test fluid within the prescribed range of 3ml ± 0.5ml led to results were of such a variable nature that the test could not be reliably repeated.

There was also an inconsistency between Figures 3 and 4 and claim 1 since they showed separate strips, neither of which could not be identified as "a member".

Since in the description and in all test samples tissue layers had been used as the second layer, this was an essential feature of the claimed solution, and with its omission from claim 1 this claim lacked the necessary support. E3, which was cited by the Respondent as evidence for the availability of various materials to be selected by the skilled person, was not prior art and would therefore not help the skilled person to carry out the invention.

The subject-matter of claim 1 was not novel when compared with the sanitary napkin disclosed in E21 because all the features of claim 1 were at least implicitly disclosed in that document. The materials used there had inherently the same properties as those claimed in the patent.

The claimed invention was also obvious from a combination of the teachings of E21 with E9, E10, E12 or E1. Starting from E21 the problem to be solved consisted in the provision of a thin sanitary napkin having improved absorbency and efficiency in retaining fluid despite being void of superabsorbent material. This
problem was solved by an increased density of the reservoir layer which caused the fluid to spread fully over its entire length. Since E9, E10, E12 or E1 already disclosed such measures, the skilled person would apply their teachings to the sanitary napkin known from E21, and thus he was led to the subject-matter of claim 1 without the involvement of an inventive step.

VII. The arguments of the Respondent are summarised as follows:

The "higher wicking capability" of the second member was explained in the patent specification (par. [0030] and [0031]) so that the skilled person would clearly understand the interrelation of the wicking capability and the wicking speed which could be determined by the test procedure referred to in claim 1. Furthermore it was clearly indicated in the claim that an exact quantity of 3 ml should be used in the test procedure.

E3 was not quoted as prior art, but only to show that at the time of its application the skilled person had a range of materials from which he could select a suitable one for his particular purpose.

The subject-matter claimed was novel when compared with the teaching of E21 because there the tissue wrapped around the core was part of the storage layer and its wicking would not result in a fluid stain as claimed and measured by the test procedure of the patent. In particular, the claimed test method was not comparable with that used in E21 since the absorbency was measured with samples hanging vertically whereas in the patent in suit the samples were positioned horizontally.
In respect of inventive step, E21 led away from the claimed solution because there the "holding tank", contrary to the teaching of the patent in suit, had a high capacity, although acquiring the fluid only slowly. Since the technical problem pointed in a different direction, the skilled person had no reason to try combining E21 with other known solutions, and if he did so, a combination with documents E9, E10, E12 or E1 would not lead to the subject-matter claimed.

Reasons for the Decision

1. The appeal is admissible.

2. Amendments

Claim 1 is based on the claim as maintained by the Opposition Division and has been further restricted. The reasons given in the decision of the Opposition Division in respect of the admissibility of the amendments made then are fully adopted by the Board. Additionally claim 2 and further features taken from the description have been incorporated. Support for the inserted terms "in the x and y directions" is found in paragraph [0031], and for "the stain length being measured 5 minutes after a 3 ml insult using the test procedure described in paragraphs [0030] to [0040]" in these cited paragraphs. Thus the amendments are admissible under Article 123(2) EPC, and, since they restrict the scope of the claim, also under Article 123(3) EPC.
2. **Sufficiency of disclosure (Article 100(b) EPC)**

The last feature of claim 1, defining a thickness of less than about 5 mm for the sanitary napkin, identifies the napkin as a so-called "ultra thin" article having particular characteristics when compared with thicker articles in which the wicking capability is much higher. Since the materials suitable as the first member are clearly defined, the skilled person is in a position to select without undue burden a different material having a higher wicking capability than the first member, based on his general knowledge. Therefore the Appellant's objection in this respect is rejected.

Since claim 1 incorporates the test method described in the patent specification, the skilled person is able to carry out the test within the range of common standard deviations. The deviations in the experiments carried out by the Appellant cannot be accepted as proving the contrary because different test conditions were used. No difficulties can be seen in peeling apart the components and reassembling them in the same position if a test engineer carefully follows the instructions of the patent in suit.

Since the subject-matter of claim 1 is clear, and the results of the test method defining its properties can be achieved out without undue burden, the claim meets the requirements of Article 83, 84 and 100(b) EPC.

3. **Novelty**

3.1 Novelty was disputed having regard to E21, which discloses a thin sanitary napkin comprising an absorbent
including first and second members 20, 30 each having a predetermined width, said first member 20 having a width which is greater than the width of said second member 30, said second member positioned below said first member, said second member having a higher wicking capability than said first member (Figure 1, 2; page 13, Table 1B), wherein the first member is a co-form being an air-formed blend of meltblown fibres and pulp fibres and which is void of superabsorbent material (page 11, Example 14) and wherein said napkin has a thickness of less than about 5 mm (page 8, line 17).

3.2 Contrary to the Appellant's argument, E21 does not show, explicitly or implicitly, the features that the wicking capability of said first and second members can be expressed as a ratio of length of a fluid stain in said second member to the length of a fluid stain in said first member, said ratio being at least 1.7 when the length of said fluid stain in said second member is at least 76 mm, the stain length being measured 5 minutes after a 3 ml insult using the test procedure described in paragraphs [0030] to [0040]. The values of the wicking capabilities of the transfer and the reservoir layers (Table 1A) are determined with a test method whereby the test samples are vertically dipped into water. The wickability is measured after 5 minutes for each of the samples separately. In the test procedure according to the patent in suit a quantity of 3 ml test fluid is dispensed onto the horizontally positioned test sample. After separating the components and measuring the stain lengths, the components are returned to their original position, and after 5 minutes the stain lengths are measured again. Because of the differences in the test method (horizontal - vertical; defined - undefined
quantity of fluid; interaction between the components - separate samples) it cannot be known what results would be obtained if the components of E21 were to be tested according to the method of the patent. Therefore the subject-matter of claim 1 meets the requirement of novelty Article 54(1) EPC.

4. **Inventive step**

4.1 The closest prior art is represented by E21, which discloses the known features of claim 1 as described above (3.1). Starting from that embodiment the underlying problem can be seen in the provision of a thin sanitary napkin having an improved wicking ability and which acquires body fluids quickly and retains them securely. In addition it is desired to give the user a post-use signal indicating when the sanitary napkin needs to be changed (page 2, lines 34 to 40).

This technical problem is solved by the sanitary napkin having the features of claim 1.

4.2 The Appellant submitted that the transfer layer and the reservoir layer disclosed in E21 would act in the same manner as the absorbent claimed. The fluid would rapidly pass through the transfer layer and be absorbed by the reservoir layer. However, the reservoir layer of E21 need not be as rapidly wicking as the transfer layer (page 5, line 40). Consequently this teaching points in a different direction since the second member in the patent in suit, corresponding to the reservoir layer of the prior art and having a higher wicking ability, is intended to acquire the fluid more rapidly than the
first layer. Therefore the construction of the sanitary napkin of claim 1 is not made obvious by E21.

4.3 The Appellant further argued that the claimed invention was obvious from a combination of E21 with D1, D2, D3, or D5. These documents disclosed absorbent articles of common design in the art, and the skilled person applying their teachings to a sanitary napkin according to E21 would be led to the subject matter of claim 1.

4.4 D1 discloses a sanitary napkin having an absorbent pad comprising two absorbent layers 5 and 6. The top layer 5 includes a mixture of superabsorbent material and hydrophilic fibres. The bottom layer 6 is compressed more heavily than the top absorbent layer 5 and contains essentially no superabsorbent material (page 9, lines 13 to 16; lines 26 to 29). The presence of superabsorbent in the top layer indicates clearly that the fluid absorbing mechanism works in a different manner than in the claimed invention. Thus D1 does not give a hint towards the invention.

4.5 The diaper shown in D2 comprises layers of nearly the same width extension. No incentive can be derived from the teachings of that document towards the construction of the claimed sanitary napkin including a first member having a width which is greater than the width of the second member, and therefore D2 also cannot lead to the claimed solution.

4.6 The latter feature is also not present in the sanitary napkin according to D3, where the two layers 10 and 15 have the same extension.
4.7 The disposable diaper disclosed in D5 is further away from the sanitary napkin of claim 1 than the above prior art in that it tends to transport the fluid from the facing web into a highly porous batt (page 2, lines 8 to 12). A pointer towards faster wicking ability of the third, compacted layer, being the corresponding element in the patent in suit, is not derivable from that document.

4.8 Since none of the above discussed documents contains any indication leading towards the properties of the sanitary napkin claimed based on its design and its properties being measured with the test method described in the patent, claim 1 meets the requirement of an inventive step (Article 56 EPC).

5.1 The Appellant further raised the objection that the embodiments of Figures 3 and 4 of the patent in suit were not consistent with the wording of claim 1. The Boards concludes that these drawings are only schematic ones, and that claim 1 does not exclude a layer being composed of side-by-side arranged strips.

5.2 In view of the above findings the Board comes to the conclusion that the proposed solution to the technical problem underlying the patent in suit defined in claim 1 as amended is novel and inventive and complies with the criteria of patentability (Article 52(1) EPC). The same follows for claims 2 to 12, 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 Opposition Division with the order to maintain the patent on the basis of the amended description, pages 2 to 11, and amended claims 1 to 12 filed during the oral proceedings and Figures 1 to 5 of the patent as granted.

The Registrar: 

M. Patin

The Chairman:

P. Alting van Geusau