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Datasheet for the decision of 12 February 2014

Case Number: T 1711/10 - 3.2.06

Application Number: 99962758.1

Publication Number: 1135088

IPC: A61F13/15

Language of the proceedings: EN

Title of invention:
ABSORBENT PRODUCT CONTAINING AN ELASTIC ABSORBENT COMPONENT

Patent Proprietor:
KIMBERLY-CLARK WORLDWIDE, INC.

Opponent:
SCA Hygiene Products AB

Relevant legal provisions:
RPBA Art. 13(1)
EPC Art. 54, 56, 83

Keyword:
Main request filed during oral proceedings - admitted
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)

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Case Number: T 1711/10 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 12 February 2014

Appellant: (Opponent)	SCA Hygiene Products AB 405 03 Göteborg (SE)
Representative:	Romare, Laila Anette Zacco Sweden AB Torggatan 8 Box 142 401 22 Göteborg (SE)
Respondent: (Patent Proprietor)	KIMBERLY-CLARK WORLDWIDE, INC. 401 North Lake Street Neenah, WI 54956 (US)
Representative:	Chiva, Andrew Peter Dehns St Bride's House 10 Salisbury Square London EC4Y 8JD (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 9 June 2010 concerning maintenance of the European Patent No. 1135088 in amended form.**

Composition of the Board:

Chairman: M. Harrison
Members: G. de Crignis
K. Garnett

Summary of Facts and Submissions

I. By way of its interlocutory decision of 9 June 2010, the opposition division found that European Patent No. 1 135 088 in an amended form met the requirements of the European Patent Convention (EPC).

II. The appellant (opponent) filed an appeal against this decision and in its grounds of appeal requested revocation of the patent. Objections concerning sufficiency of disclosure were made. Also, the appellant objected that the subject-matter of claim 1 lacked novelty in view of each of

D1 WO-A-96/116624 and
D2 EP-A-0 630 632,

and that the subject-matter of claim 1 lacked an inventive step.

III. In its response of 17 March 2011, the respondent (patent proprietor) replied to the appeal and submitted a main request corresponding to the request upheld by the opposition division as well as first to fourth auxiliary requests.

IV. In a communication annexed to the summons to oral proceedings, the Board indicated *inter alia* that the subject-matter of claim 1 of the main request appeared to be novel with regard to D1 and D2, at least in view of the feature of the claimed quotient lying between 0.06 and 0.95.

V. In its submission of 13 January 2014, the respondent filed an amended main request, which corresponded essentially to the first auxiliary request on file, but

with the further limitation that the liquid-impermeable backsheet member was defined as being a film.

VI. Oral proceedings were held before the Board on 12 February 2014.

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

The respondent requested that the decision under appeal be set aside and the patent be maintained on the basis of the new main request filed during the oral proceedings.

Claim 1 of that new main request reads:

"An absorbent article (10) in the form of a diaper or training pant, the article having a longitudinal direction, a transverse direction (2b), a front portion (14), a back portion (12) and an intermediate portion (16) interconnecting said front and back portions, said article comprising:
a liquid impermeable composite laminate backsheet member (30) composed of an elastomerically stretchable material;
a liquid-permeable topsheet layer (28); and
a retention portion (48) composed of an elastomerically stretchable material sandwiched between said backsheet member (30) and said topsheet layer (28);
wherein said absorbent article provides an article elongation-at-peak-load value which is at least 50%;
wherein a quotient of an elongation value of said retention portion (48) divided by an elongation value of said backsheet member (30) is at least 0.06, where each elongation value is determined at a loading of 100g/inch (0.39 N/cm); and wherein said quotient of

said elongation value of said retention portion (48) divided by said elongation value of said backsheet member (30) is not more than 0.95, where each elongation value is determined at said loading of 100g/inch (0.39 N/cm)."

VII. The appellant argued essentially that:

The main request should not be admitted. The amendment concerned subject-matter which had been neither searched nor examined previously.

The patent in suit did not disclose and define the "retention portion" in a sufficient manner for the skilled person to carry out the invention across the entire scope of the claim. When considering a multi-layered product, different elongation quotients would be obtained depending on which particular layers were chosen as being included in the "retention portion". No information concerning how to choose the appropriate layers of the retention portion was given in the patent. Further, when considering absorbent articles having a multitude of absorbent layers, apart from the difficulty of knowing which layers should be attributed to the retention portion, no guidance was given how to separate these layers, for example without damaging them and altering their characteristics. Therefore a reliable determination of the claimed elongation quotient could not be made.

The subject-matter of claim 1 lacked novelty. The composite laminate in D2 was constituted by the backsheet 12 and the basic cloth 1. Since the backsheet 12 could be formed of a liquid-impermeable sheet, the composite as a whole would be liquid-impermeable. The crimped fibers described in D2 for the absorbent core

were of generally the same type and had generally the same characteristics as the materials described in the patent in suit, in particular due to the elasticity created by crimping. Accordingly, very similar elongation characteristics would be present, and the lower level of article elongation-at-peak-load of 50% defined in claim 1 was thus inherently disclosed by D2, not least since this was a very low value. Additionally, the claimed range for the quotient between an elongation of a retention portion and an elongation of a backsheet of 0.06 to 0.95 was neither sufficiently narrow nor remote from the range of less than 1 disclosed in D2 and thus could not render the claimed subject-matter novel.

Concerning inventive step, D2 represented the closest prior art as it concerned (see e.g. col. 3, lines 24 - 28) generally the same problem as in the patent in suit (see paragraph [0090]). Even if it were not accepted that the crimped fibres used as materials for the construction of the elastic absorbent pad necessarily provided an elasticity to the article such as to arrive at an article-at-peak-load value above the claimed minimum of 50%, it was an obvious choice for a skilled person to provide such a level of elasticity. D2 further taught that the claimed quotient should be "less than 1". There was nothing inventive in using a lowest value of 0.06 and a highest value of 0.95 for the elongation quotient, as the advantages of the claimed range - as explained in paragraph [0090] of the patent in suit - were related to the article providing good fit, comfort and appearance, which meant that they were not related to any surprising or unexpected effects. The need for an absorbent structure providing desired combinations of flexibility, integrity, conformance to the wearer's body could only lead to a

quotient lying within this range. No other document represented the closest prior art and no other problem-solution approach was applicable.

VIII. The respondent argued essentially as follows:

The main request should be admitted. Claim 1 was limited to the backsheet member being a liquid impermeable composite laminate. The amendment was made in order to react to the objections made during the oral proceedings with respect to the previous main request wherein the backsheet member was claimed to be a film. Accordingly, it was only possible to make the amendment during the oral proceedings. It was not complex, nor did it raise new issues in particular because it had always been argued that the backsheet in D2 was the liquid-impermeable member thereof and not the cloth, and this amendment simply brought out this difference. Support for this amendment could be found on p. 7,l. 31 - 35, p. 9, l. 21 - 32, and it was a feature of the Examples.

The appellant's objections to lack of sufficiency of disclosure were unwarranted and instead concerned merely the breadth of scope of the claim in that the article "comprised" the defined members/layers. Merely because the claim might have a broad scope, did not mean that there would be an undue burden in producing such an article. Indeed, the article could be assembled and arrived at without any problem of enablement. In a multi-layer product, the retention portion could consist of one or more layers thereof and any such portion, which fell within the definition of the retention portion could be tested for meeting the claimed criteria. No evidence had been supplied that such a test could not be carried out, nor that a

difficulty in separating out the retention portion existed; the elongation of the retention portion could even be tested before assembly if required.

The subject-matter of claim 1 was novel. It required that the article had an elongation-at-peak-load value of at least 50%. This was neither explicitly nor implicitly disclosed in D2. The crimped fibres which were disclosed for the absorbent pad in D2 would not necessarily enable the article to elongate by 50% before reaching its peak load value. Additionally, D2 described that the core might have a lower "elastic stretchability" than the basic cloth which characteristic was more general than the claimed quotient related to the core being less elongatable than the liquid-impermeable composite laminate backsheet.

The appellant's argument that D2 represented the closest prior art could be accepted. However, D2 did not address the problem of providing an article with good elastic stretchability while avoiding excessive moulding to the body and bunching. This was because D2 employed crimped fibres that only allowed a relatively small amount of elongation and so the above problem would likely not occur. In contrast to the crimped fibres of D2, elastomers were provided in the retention portion and backsheet in the embodiments of the contested patent to give the required properties.

Furthermore, D2 did not even consider the relationship of the elasticity of the laminate with the absorbent pad in combination with the elasticity of the whole article. Accordingly, the subject-matter of claim 1 involved an inventive step.

Reasons for the Decision

1. Admittance of the (new) main request

1.1 The current request was filed during the oral proceedings, hence at the latest possible stage in the proceedings. According to Article 13(1) of the Rules of Procedure of the Boards of Appeal (RPBA), it lies within the discretion of the Board to admit any amendment to a party's case after it has filed its grounds of appeal or reply. In order to be admitted at such a late stage of proceedings, such a request should normally be clearly allowable at least in the sense that it overcomes the objections raised and does not give rise to new objections, which is the case for claim 1 of the present request as set out below.

1.2 Although the amendment concerns specific subject-matter which had been neither searched nor examined previously, such amendment (limiting the backsheet member in claim 1 to a liquid-impermeable composite laminate) was made as a reaction to the objections and comments made during the oral proceedings with respect to the main request on file at that time. Support for this amendment was indicated by the respondent (see also point 2 below). Moreover, the amendment was not particularly complex, since it limited the definition of the backsheet member compared to D2 and it did not change the underlying arguments put forward by the respondent with respect to novelty and inventive step since it had always been argued by the respondent that the backsheet in D2 was the only sheet which could be correctly equate with the backsheet in the patent, and not the "basic cloth". This amendment brought out this difference. Hence, the Board concluded that this

amendment did not result in a further search being necessary for the appellant.

1.3 Accordingly, the Board exercised its discretion under Article 13(1) RPBA and admitted the request into the proceedings.

2. Main Request - Amendments

Claim 1 of the main request is a combination of originally filed claims 1, 16 and 17, together with the further limitation that the backsheet member is a liquid-impermeable composite laminate. Such feature is disclosed on originally filed page 7, l. 31 - 35 and page 9, l. 21 - 32 and in the examples. In this regard, it may be noted that page 7, lines 31 to 35 gives only a very broad disclosure of the materials from which the backsheet may be made within the scope of the described invention; a composite laminate is only one of several possibilities. Page 9 line 21 *et seq* again can only be regarded as describing such laminates as one of several possibilities to be considered for the backsheet structure; no clear disclosure can be taken from this that every preferred aspect of the invention would be fulfilled by all backsheet structures. When further considering the structure of the article from among these various backsheet possibilities (given on pages 7 and 9) which is unambiguously associated with products having the quotients defined in claim 1 (i.e. those quotients which were originally defined in dependent claims 16 and 17 of the application as filed), the only unambiguous disclosure regarding the specific type of backsheet is that which can be gleaned from the examples where the quotient values in claim 1 are fulfilled. These backsheet structures are notably all liquid-impermeable composite laminates. Whilst it is

also true that only specific laminates which meet the quotient requirements in claim 1 appear in the examples, the skilled person is made aware from the application as filed (e.g. page 8, lines 4 to 11) that the composite laminates given are only exemplary and not intended to be limiting for the disclosure. Such additional information would necessarily be understood in the content of the examples.

Accordingly, the Board concludes that the requirement of Article 123(2) EPC is met.

3. *Sufficiency of disclosure*

Claim 1 refers to the "retention portion" and defines it as being "composed of an elastomerically stretchable material sandwiched between said backsheet member (30) and said topsheet layer (28)". Accordingly, any single layer or any multiplicity of layers in this position can be identified as constituting a "retention portion".

Hence, depending on which layer or layers are considered to be included in a "retention portion" and tested in order to establish the claimed elongation quotient, it is possible to have varying results. However, in case one of such tests (involving either a single layer or a variety of layers) results in the claimed range for the quotient, the skilled person can identify the claimed retention portion as being present.

There is no evidence that this results in an undue burden for the skilled person to identify in a layered article either single layers or composite layers and test them for arriving at a result for the claimed

elongation quotient. Whether this test is carried out before or after assembling of the article is seemingly irrelevant in the context of the claimed wording.

Although the foregoing reasoning means that the scope of claim 1 not only extends to single layer retention portions but may also extend to multi-layer retention portions (indeed this is also a possibility described in the patent), this is not a fact which by itself makes the patent open to an objection of lack of sufficiency of disclosure of the invention over the whole scope of the claim.

In terms of arriving at structures which do also fall within the scope of the claim, the patent in suit also discloses in examples 23 to 36 (which correspond to the claimed invention) article elongation-at-peak-load values which vary from 143% to 424% and a quotient of an elongation value of the retention portion divided by an elongation value of the backsheet member in the range of from 0.06 to 0.47. These examples demonstrate that articles within the scope of the invention according to claim 1 can indeed be obtained. It is also relevant to note here that, beyond mere argument, no evidence was supplied by the appellant which might give rise to doubt that the invention as defined in claim 1 could not be carried out over its whole scope.

Therefore, the Board finds that patent in suit discloses the claimed article including the retention portion in a sufficient manner for the skilled person to carry out the invention (Article 83 EPC).

4. Novelty - D2

4.1 D2 discloses a disposable pants-type article. The absorbent pad therein comprises liquid-permeable top- and backsheets (11, 12) made of material having an elastic stretchability (col. 3, l. 10 - 12) and a liquid absorbent core sandwiched between the topsheet and backsheet. The core material involves an elastic stretchability due to its content of crimped fibres (col. 3, l. 17 - 53). Such pad is laid upon the inner surface of the basic cloth 1 which is made of elastically stretchable fibrous nonwoven fabric (claim 1). Reference is made to the possibility that the absorbent pad may have a lower elastic stretchability than the basic cloth 1 (col. 3, l. 21 - 25).

4.2 The appellant argued that the claimed feature of the article having an article elongation-at-peak-load value of at least 50% would be disclosed in D2 by the material of the absorbent core which is specified as comprising a mixture of thermoplastic crimped fibre, hydrophilic fibre and high absorption polymer powder, and wherein the thermoplastic crimped fibres are disclosed as being present in a range of from 15 to 40wt% in order to obtain the desired elastic stretchability and to maintain advantageous absorptivity.

In this respect it has to be taken into account that claim 1 of the patent in suit refers to the retention portion being composed of an elastomerically stretchable material - which material is exemplified via the examples 23 to 36 by elastomeric fibres (Kraton G2740). Although it is acknowledged that crimped fibres will have a certain elasticity and stretchability, the respondent disagreed that such fibres were

elastomerically stretchable to the degree required according to claim 1 (i.e. allowing an article elongation-at-peak-load which is at least 50%).

In the absence of any evidence that the article disclosed in D2 including crimped fibres in its absorbent pad as the elastic component would enable the article to elongate before reaching its peak load value to at least 50%, the appellant's assumption cannot be regarded as being more than mere speculation.

Hence, there is no clear and unambiguous disclosure that an article elongation-at-peak-load value would necessarily be present in an article according to D2. The subject-matter of claim 1 is thus novel (Article 54 EPC) at least in view of this feature.

4.3 Additionally, the appellant argued that the feature concerning the range for the quotient, was inherent in D2 as this discloses that the elastic stretchability of the liquid-absorbent core 13 may be lower than that of the basic cloth 1. Although such wording might be understood to mean an elongation quotient of "up to 0.99", it does not disclose a specific range having a defined lower and upper limit.

The appellant also argued that the claimed range for the quotient (from 0.06 to 0.95) was neither sufficiently narrow nor sufficiently remote from the quotient range of less than 1 (disclosed in D2) and thus that the quotient in claim 1 did not define novel subject-matter.

The Board however does not accept this argument since claim 1 defines the backsheet member as a "liquid-impermeable composite laminate". If the backsheet 12 in

D2 were considered alone without the basic cloth (see e.g. col. 3, lines 33 to 35) as being the impermeable backsheet of claim 1, no value is quoted in D2 for the relative elongation of the retention portion to that backsheet, let alone an elongation value for either of these at any particular elongation load; there is only a disclosure that the elastic stretchability of the absorbent core and particularly the pad may be lower than that of the "basic cloth" (col. 3, lines 21 to 28). The basic cloth 1 itself is not described as being liquid-impermeable. Thus, there is no disclosure in D2 which allows an elongation quotient as defined in claim 1 to be arrived at, let alone lying within the range of 0.06 to 0.95. In this regard it should be observed that the disclosure in D2, column 3, line 54 to column 4, line 5, relates to a different embodiment in which the pad is not formed of crimped fibres and is described as being "substantially non-stretchable".

4.4 Accordingly, D2 neither discloses an elongation-at-peak load value of the article of at least 50% nor a quotient between 0.06 and 0.95 in relation to the elongation values of the absorbent pad and the backsheet or the absorbent pad to backsheet/basic cloth.

4.5 The appellant did not argue that the novelty of the subject-matter of claim 1 was prejudiced by any other prior art, nor did the Board find reason to question this. Accordingly, the subject-matter of claim 1 is new (Article 54 EPC).

5. Inventive step

5.1 The appellant argued that D2 represented the closest prior art starting point for considering inventive step

as it has a similar structure to the article of claim 1 and has the aim of providing elastic stretchability to the article (col. 1, l. 20 - 38 and col.3, l 21 - 28) which was generally the same problem as considered in the patent on page 13, line 46 *et seq*. The respondent also considered D2 to be the closest prior art starting point.

5.2 As stated above (see the section on novelty), the subject-matter of claim 1 differs from the article in D2 in that it requires the article to have an article elongation-at-peak-load value of at least 50%, and in that it requires a specific range (0.06 to 0.95) for the quotient of an elongation value of the retention portion divided by an elongation value of the backsheet member at a specific loading.

5.3 Considering the distinguishing features, the objective technical problem to be solved when starting from D2 can be regarded as the provision of an article having good elastic stretchability but which avoids excessive moulding to the body and bunching, in line with paragraph [0090] of the patent where the effect of the quotient is explained. The article of claim 1 achieves this object by having a relatively higher stretchability when compared to the article in D2, i.e. at least 50% elongation-at-peak and providing a retention portion that is, in a defined range and at a defined loading (which is relatively low), less easily stretchable than the impermeable backsheet.

5.4 D2 employs crimped fibres for obtaining the desired elastic stretchability in the absorbent pad and there is no suggestion to replace these fibres by (more) elastomeric fibres. The elasticity of the whole article is considered to be sufficient by the basic cloth

elastically adapting itself to the movements of the wearer during use and sufficient for the absorbent pad to elastically adapting itself to the expansion and contraction of the basic cloth (col. 4, l. 35 - 39). Hence, D2 does not teach towards a further improvement of the overall elastic properties of the absorbent pad and thus of the absorbent article as a whole. Accordingly, the skilled person does not receive any suggestion to consider a further improvement of the elasticity of any component of the article.

5.5 Additionally, D2 indicates that the quotient of elongation of the retention portion divided by an elongation value of the basic cloth should be less than 1, but (in relation to the absorbent core of crimped fibres) states nothing about the elongation characteristics of the retention portion compared to an impermeable backsheet (i.e. backsheet 12). Thus whilst the appellant's view is correct that the range of "less than 1" is roughly the same as the claimed range as such, this has little to do with the quotient claimed. As a consequence, there cannot be identified any need to establish a quotient as defined in claim 1 when desiring to provide an article avoiding excessive molding to the body and bunching in combination with a more elastic absorbent pad. Hence, the skilled person does not receive any suggestion towards the solution provided in claim 1. However, it is exactly this quotient range in combination with the elasticity of the absorbent pad which provides good elastic stretchability combined with less molding to the body and less bunching to the whole article.

5.6 The appellant argued first that it would be obvious for a skilled person to choose materials of the absorbent product that produced an elongation-at-peak-load value

above 50% if this should be desired when starting from D2, since the value was not particularly large anyway. However, no further document was cited to support this argument, the appellant relying in this regard on general knowledge of the skilled person. Thus, whilst it is accepted that such a value could indeed by obtained relatively easily by appropriate choice of materials, no incentive can be found for doing so when considering D2.

5.7 Further, the appellant argued that the basic cloth in D2 could be considered as being the backsheet of the claimed absorbent article. For example, if sheet 12 of D2 were permeable then the basic cloth would need to be impermeable. Since the quotient of elongation of the pad to basic cloth was less than 1 this would be simply a minor adjustment to lie within the claimed range and was thus allegedly obvious.

However, the Board does not accept this, since there is no teaching to make the basic cloth impermeable, and even if this were done there is no teaching to arrive at the quotient range claimed. The impermeability disclosed in D2 is provided by the backsheet 12 itself; no disclosure of an impermeable basic cloth is present. Even if the skilled person would consider laminating the backsheet 12 together with the basic cloth (for which there is anyway no teaching), there is no quotient value derivable from D2 for such a combination of sheets. Thus it would only be with the benefit of hindsight rather than objective consideration of the problem to be solved, that the skilled person could consider making such a change. Consideration of inventive step using hindsight considerations of this type would however be contrary to an objective appraisal of inventive step.

5.8 Accordingly, when starting from D2 and considering the problem to be solved and the general knowledge of the skilled person, these together do not lead to the subject-matter of claim 1 in an obvious way.

As a consequence, the subject-matter of claim 1 is considered to involve an inventive step.

5.9 No further problem/solution approach or other documents were put forward by the appellant in relation to the assessment of inventive step.

6. The description was amended to be consistent with the claim. Neither the Board nor the appellant had objections to these amendments, such that an order for maintenance of the patent could be made.

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:

   (a) the single claim of the new main request filed during the oral proceedings before the Board of Appeal;

   (b) Pages numbered 4, 6, 7, 10, 12 and 14 to 35 of the description as granted and amended pages numbered 2, 3, 5, 8, 9, 11 and 13 of the description as filed during the said oral proceedings; and

   (c) Figures 1 to 7 as granted.

The Registrar: The Chairman:

M. H. A. Patin M. Harrison

Decision electronically authenticated