Case Number: T 0075/06 - 3.2.06
Application Number: 95911971.0
Publication Number: 0752892
IPC: A61L 15/42
Language of the proceedings: EN

Title of invention:
Absorbent members for body fluids having good wet integrity and relatively high concentrations of hydrogel-forming absorbent polymer

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponent:
SCA Hygiene Products AB
Kimberly-Clark Worldwide, Inc.
Stockhausen GmbH

Headword: -

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

Relevant legal provisions (EPC 1973): -

Keyword:
"Disclosure - enabling (no)"
"Late submitted requests - not admitted"

Decisions cited: -

Catchword: -
Case Number: T 0075/06 – 3.2.06

DECISION
of the Technical Board of Appeal 3.2.06
of 4 March 2008

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Decision under appeal:  Interlocutory decision of the Opposition
Division of the European Patent Office posted
22 November 2005 concerning maintenance of
European patent No. 0752892 in amended form.

Composition of the Board:

Chairman:  P. Alting Van Geusau
Members:  G. L. de Crignis
          K. Garnett
Summary of Facts and Submissions

I. European Patent No. 0 752 892, granted on application No. 95 911 971.0, was maintained in amended form by decision of the opposition division posted on 22 November 2005.

The opposition division held that the invention was disclosed in a manner sufficiently clear and complete to be carried out by a person skilled in the art (Article 100(b) EPC), that the priority of the granted patent was valid, that the subject-matter of claim 1 in accordance with the patent proprietor's main, first and second requests lacked novelty (Article 54(3) EPC). It further held the subject-matter of claim 1 according to auxiliary request III was novel and inventive.

Appellant I (patent proprietor) filed a notice of appeal against this decision on 13 January 2006, and paid the appeal fee simultaneously. On 31 March 2006 the statement of grounds of appeal was filed, together with the request to set aside the decision and to maintain the patent as granted, alternatively on the basis of one of the seven auxiliary requests which were also submitted.

Appellant II (opponent I) filed a notice of appeal against this decision on 23 January 2006, and paid the appeal fee simultaneously. On 27 March 2006 the statement of grounds of appeal was filed.

Appellant III (opponent II) filed a notice of appeal against this decision on 18 January 2006, and paid the
appeal fee simultaneously. On 31 March 2006 the statement of grounds of appeal was filed.

Appellant IV (opponent III) filed a notice of appeal against this decision on 20 January 2006, and paid the appeal fee simultaneously. On 31 March 2006 the statement of grounds of appeal was filed.

Appellants II to IV maintained their objections with regard to Article 100(a) and (b) EPC and requested the revocation of the patent.

In response to the opponents' appeals the proprietor submitted new auxiliary requests 1 to 10 with its letter dated 15 December 2006.

II. In a communication dated 25 September 2007 accompanying the summons to oral proceedings, the Board commented on certain formal issues arising out of Appellant I's (the proprietor's) requests, as well as on the issue of the interpretation of the subject-matter of claim 1. The Board also commented on the issues of sufficiency, novelty and inventive step, the latter in particular with regard to the experimental data submitted by the parties.

In response to this communication, appellant I (patent proprietor) filed nineteen amended requests with its letter of 19 December 2007 and attached full typed copies of the requests with its letter of 4 February 2008.

III. Oral proceedings were held on 4 March 2008. Appellant I (patent proprietor) requested that the decision under
appeal be set aside and that the patent be maintained on the basis of the main, alternatively the first or second auxiliary requests filed during the oral proceedings.

Appellants II and III requested that the decision under appeal be set aside and that the European patent be revoked. Appellant IV (opponent III) was not represented, as had been announced with its letter of 3 March 2008, but maintained its request in writing to revoke the European patent.

At the oral proceedings the discussion focussed on the determination of the region specified in claim 1.

Claim 1 according to the main request reads:

"An absorbent article comprising a fluid pervious topsheet, a backsheet and an absorbent core positioned between said topsheet and said backsheet, the absorbent core being for acquiring, distributing and storing body fluids, wherein the core comprises an absorbent member for the containment of aqueous body fluids in the form of a fluid storage layer, and wherein the absorbent member comprises at least one region comprising hydrogel-forming absorbent polymer in a concentration of from 60 to 100% by weight, preferably from 70 to 100%, most preferably from 80 to 100% by weight, said hydrogel-forming polymer in said region providing a gel-continuous fluid transportation zone when in a swollen state and having:

a) a Saline Flow Conductivity (SFC) value of from 50 to 500 x 10^{-7} \text{ cm}^3/\text{sec g}, the SFC being measured by the SFC method defined herein;
b) a Performance under Pressure (PUP) capacity value of from 23 to 35 g/g, as measured by the PUP capacity test defined herein, under a confining pressure of 0.7 psi (5kPa);

c) a basis weight of at least 10 gsm,
and wherein said hydrogel-forming polymer is surface-crosslinked and is selected from slightly network crosslinked products of partially neutralized polyacrylic acid."

The subject-matter of claim 1 of the first auxiliary request differs from the subject-matter of claim 1 of the main request in that in claim 1, the wording "... and wherein the absorbent member comprises at least one region comprising hydrogel-forming absorbent polymer in a concentration of from 60 to 100%,... " is changed to 
"... and wherein the absorbent member comprises hydrogel-forming absorbent polymer in a concentration of from 60 to 100%,... ".

The subject-matter of claim 1 of the second auxiliary request differs from the subject-matter of claim 1 of the main request in that in claim 1, the wording "... said hydrogel-forming polymer in said region providing a gel-continuous fluid transportation zone when in a swollen state and having: ...."
is changed to 
"... said hydrogel-forming polymer region providing a gel-continuous fluid transportation zone when said hydrogel-forming polymer is in a swollen state and said hydrogel-forming polymer having: ...". 
IV. Appellant I (patent proprietor) essentially relied upon the following submissions:

The new requests should be admitted into the proceedings. The invention described in the patent in suit was sufficiently disclosed. Particularly with regard to the region comprising the hydrogel-forming polymer, there could be no possible doubt. The region was specifically defined in paragraph [0038] of the patent in suit. Considering also the corresponding content of paragraphs [0021], [0055], [0123] and [0125] the link between "region" and "zone" was given. Only a sensible interpretation should be considered. In view of the intended effects, no microscopic area could be envisaged for the region or zone.

The subject-matter of claim 1 of the first and second auxiliary requests was very similar to what was already under discussion. The subject-matter of claim 1 of the first auxiliary request specified that it was the absorbent member which comprised the hydrogel-forming absorbent polymer and thus the whole member constituted the zone which provided the gel-continuous fluid transportation zone. Hence, the concentration of hydrogel-forming absorbent polymer in the member as a whole was relevant for the calculation of the percentage.

The subject-matter of claim 1 of the second auxiliary request specified that it was the hydrogel-forming polymer which constituted the region and thus provided the zone. It would create no extra burden to consider the corresponding arguments.
V. The appellants II to IV (opponents I to III) essentially relied upon the following submissions:

None of the requests should be admitted into the proceedings as they were late-filed and there was neither a priori nor a posteriori sufficient disclosure present for the skilled person to identify the claimed absorbent article (Article 83 EPC).

The definition of "region" in paragraph [0038] made it clear that the terms "regions" and "zone(s)" referred to portions or sections of an absorbent member. Thus, a "region" could be a minor portion of the absorbent member which in turn could be one of several absorbent members. The region did not necessarily have to be on the surface area but could also be within the absorbent core. Also an absorbent member was possible which had a non-homogeneous distribution of hydrogel absorbent polymer, so that in one region there could be a local accumulation of hydrogel material having a concentration and basis weight as claimed, but the patent did not specify how large this region should be.

No test procedure was disclosed for identifying an appropriate "region" from which the superabsorbent must be extracted for testing or for identifying the region in relation to which the polymer concentration needed to be measured. This involved arbitrary choices for the skilled person leading to different measurements for polymer concentration.

The auxiliary requests should not be admitted into the proceedings as they were not clearly allowable. The feature in claim 1 of the first auxiliary request
referring to the absorbent member and its relation to the superabsorbent polymer was not clearly and unambiguously disclosed. With regard to claim 1 of the second auxiliary request all the arguments set out for the main request applied.

Reasons for the Decision

1. The appeal is admissible.

2. **Main request - interpretation of the subject-matter of claim 1**

2.1 In order to know whether an article falls within the scope of the claim, it is necessary to assess whether:

   (a) **at least one region** comprising the specifically defined hydrogel-forming polymer in the claimed concentration is present; and whether

   (b) the specifically defined hydrogel-forming polymer (SFC, PUP values) in said region provides a gel-continuous fluid transportation zone when in a swollen state.

2.2 Although the patent proprietor suggested that this issue of construction had only been raised during the oral proceedings, it had in fact been raised earlier in the appeal proceedings, both in points II.2.2.2 and II.2.2.3 of the statement of grounds of appeal of Opponent III and in the communication sent by the Board with the summons to oral proceedings.
2.3 All the parties were agreed that with regard to this crucial "at least one region", a "microscopic" region was excluded and that a meaningful interpretation of the term "region" could only refer to a "macroscopic" region. The Board accepts this view. Hence, the "at least one region" cannot contain just a single superabsorbent particle or a small clump of particles. Thus, a macroscopic association of superabsorbent particles which provides when in a swollen state a gel-continuous fluid transportation zone in any direction (x, y or z) is to be considered as a prerequisite as concerns the region claimed.

2.4 Accordingly, in order to assess the substantive issues set out under point 2.1 above, the wording of claim 1 is to be interpreted, consistently with the specification of the patent in suit, in the following way:
- the absorbent member can have various regions (paragraphs [0038, 0120, 0128]);
- within a region further components are possible (layers, further hydrogel-forming polymers, fibrous or other parts) (paragraphs [0121], [0127] item b));
- at least one region comprises the specific hydrogel-forming polymer (having the claimed specific SFC and PUP) which provides a gel-continuous zone (paragraphs [0122, 0123]);
- other regions can comprise different hydrogel-forming polymers which provide further gel-continuous zones (paragraph [0129]);
- the regions can have a profiled concentration of any hydrogel-forming polymer (page 20, l. 22 – 25).
Furthermore, it has to be taken into account that the claimed basis weight cannot be used for the identification of a region. The basis weight is listed in claim 1 subsequently to the points (a) and (b), which characterize the hydrogel-forming polymer when in a swollen state. Inconsistently therewith, a basis weight represents a feature related to the manufacturing procedure of the absorbent article and the application of hydrogel-forming polymer in the dry state to a defined region of the absorbent article. The feature concerning the basis weight is thus of no relevance and is not discussed further in the following observations.

3. Main Request - formal considerations

The main request meets the requirements of Articles 123(2) EPC and 84 EPC. However, because the main request is not acceptable for other reasons, these issues are not discussed further in this decision.

4. Main Request - sufficiency

4.1 Relying upon the above interpretation of the claim, the identification of the region comprising the hydrogel-forming absorbent polymer having the required SFC and PUP capacity values in the claimed concentration is necessary in order to identify the claimed absorbent article. The identification of the claimed absorbent article is not only a question of clarity (Article 84 EPC) but also of sufficiency (Article 83 EPC), as the skilled person has to be able to identify the claimed article, i.e. to know whether an article falls within the scope of claim 1. Accordingly, the application as a
whole, in particular the description is taken into account for the identification of the claimed region.

4.2 Clearly, the identification of the claimed region is possible for articles having only one absorbent member comprising a hydrogel-forming absorbent polymer when this hydrogel-forming absorbent polymer has the claimed characteristics (SFC, PUP values) and is present in the claimed amount. In such case the claimed region is identical to the absorbent member as a whole. Thus, the Board accepts that such specific embodiments can be identified which would fall within the scope of claim 1. However, in accordance with the case law of the Boards of Appeal (see T 409/91, OJ 1994, 653; T 435/91, OJ 1995, 188) sufficiency of disclosure presupposes that the skilled person is able to obtain and identify substantially all embodiments falling within the ambit of the claims.

4.3 In this respect it is to be noted that the subject-matter of claim 1 does not only include in its scope articles having one absorbent member having one region comprising hydrogel-forming absorbent polymer. Throughout the patent specification, reference is made to:

(a) numerous regions which comprise further optional components, like fibrous or thermoplastic materials (paragraphs [0093] to [0116]);

(b) regions having hydrogel-forming absorbent polymer in a different concentration (below 60% by weight) (paragraph [0128, 0130]);

(c) regions having hydrogel-forming absorbent polymer in a different quality (in particular with respect
to the SFC and PUP value) (paragraphs [0119] to [0138], [0171]);
(d) layered or pocketed regions (page 20, l. 49 – 56).

Therefore, articles having more than one absorbent member and more than one region represent an important issue in the patent in suit.

4.4 Particularly for such articles with more than one absorbent member or more than one region and/or more than one hydrogel-forming absorbent polymer it is necessary to assess whether they fall within the scope of the claim. The central element for such an evaluation is the identification of the region comprising the claimed hydrogel-forming absorbent polymer in the claimed concentration.

4.5 However, the identification of the claimed region is not addressed in the patent in suit, whether in the claims or in the description. No determination method for a region or zone is specified. The sole disclosure in the patent in suit concerning the definition of a region is in paragraph [0038]. It states that "the terms "region(s)" or "zone(s)" refer to portions or sections of the absorbent member." This definition is very general and does not specify how to select the region. Moreover, the terms "region" and "zone" do not necessarily refer to the same portion or section; a zone can be part of a region or vice versa.

4.6 The further citations in the description of the patent in suit referred to by the patentee confirm the above definition: Paragraph [0021] reiterates the subject-matter of claim 1 and additionally highlights the functional role of the region comprising the claimed
hydrogel-forming absorbent polymer for the wet integrity of gel-continuous zones when formed. Paragraph [0055] refers to the SFC values of hydrogel-forming absorbent polymer and the correlating behaviour and properties, in particular when high concentrations are present in a region. Paragraphs [0123] and [0125] confirm the issues referred to in paragraphs [0021] and [0055]. Thus, these citations do not make any further contribution to an identification or determination of the claimed region.

4.7 The percentage of the hydrogel-forming polymer relative to other possible components (e.g. fibres, thermoplastic material, etc.) that are present in the region containing the polymer is specified in claim 1 as lying between 60 and 100%. However, the result will vary, depending on whether this percentage of hydrogel-forming polymer is calculated by including or excluding neighbouring areas. It will also depend on whether superabsorbent is present, upon the type of superabsorbent present (SFC/PUP), and the choice of the specific boundaries of the regions. There is no teaching as regards how much of the area abutting an area covered by the claimed hydrogel-forming absorbent polymer has to be included, how to define neighbouring regions or whether non-uniform regions (profiled regions) of the claimed hydrogel-forming polymer form one region or a plurality of regions. The definition of a "region" thus involves an arbitrary choice, in particular as regards the innumerable embodiments according to which the absorbent article comprises more than one absorbent member, which in turn comprise more than one region.
4.8 Accordingly, the skilled person is not in a position to know with certainty whether in relation to articles having more than one absorbent member, or more than one region, a particular region falls inside or outside the scope of the claim due in particular to the fact that the area of the structure forming the region is not specified. For this reason, there is no clear and unambiguous teaching making it possible for the skilled person to ascertain what falls within an important part of the scope of the claim. The patent specification does not provide sufficient information for identifying the relevant articles. Thus, the requirements of Article 100(b) EPC are not met.

4.9 According to Art. 13(1) RPBA, any amendment to a party's case after it has filed its grounds of appeal may be admitted at the Board's discretion. The discretion shall be exercised in view of inter alia the current state of the proceedings. The main request was filed during the oral proceedings, after the issue regarding the lack of identification of the region had been pointed at various times (the submissions of opponent III, the communication of the Board and in the introductory remarks at the oral proceedings). Nevertheless, the subject-matter of its claim 1 does not overcome this objection and, therefore, the Board does not admit the late-filed main request into the proceedings.

5. Auxiliary request 1

The auxiliary requests were also submitted during the oral proceedings and thus at the last possible moment.
In accordance with the case law of the Boards of Appeal, such late submitted requests should be clearly allowable at least as regards the objections which they are intended to overcome.

However, there is no clear and unambiguous disclosure in the application as filed of the absorbent article now claimed as the subject-matter of claim 1 of the first auxiliary request. The reference in claim 1 to the absorbent member comprising the hydrogel-forming absorbent polymer in a concentration of from 60 to 100% is not supported in the description as originally filed. The references cited by the patent proprietor refer consistently to the given region within an absorbent member.

Therefore, the late-filed first auxiliary request is not admitted into the proceedings.

6. Auxiliary request 2

The subject-matter of claim 1 of this request does not differ in substance from the subject-matter of claim 1 of the main request. The additional wording does not introduce any new feature or change the meaning of any feature. Thus, the assessment of the subject-matter of this claim cannot differ from that already considered when discussing the subject-matter of claim 1 of the main request and, therefore, the objections raised in relation to sufficiency of disclosure are not overcome and the second auxiliary request which was also filed during the oral proceedings is not admitted either.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar 
M. Patin

The Chairman 
P. Alting van Geusau