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Datasheet for the decision of 9 September 2015

Case Number: T 1956/12 - 3.2.07

Application Number: 04820892.0

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IPC: B65D85/16, B65D85/62, A61F13/15

Language of the proceedings: EN

Title of invention:
PACKAGING UNIT FOR ABSORBENT ARTICLES

Patent Proprietor:
SCA Hygiene Products Aktiebolag

Opponents:
KIMBERLY-CLARK WORLDWIDE, INC.
The Procter & Gamble Company

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - all requests (no)

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Catchword:

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Case Number: T 1956/12 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 9 September 2015

Appellant: (Patent Proprietor)	SCA Hygiene Products Aktiebolag 405 03 Göteborg (SE)
Representative:	Gray, Helen Mary Zacco Sweden AB P.O. Box 5581 114 85 Stockholm (SE)
Respondent 1: (Opponent 1)	KIMBERLY-CLARK WORLDWIDE, INC. 401 North Lake Street Neenah WI 54956 (US)
Representative:	Mabey, Katherine Frances Dehns St Bride's House 10 Salisbury Square London EC4Y 8JD (GB)
Respondent 2: (Opponent 2)	The Procter & Gamble Company One Procter & Gamble Plaza Cincinnatti, Ohio 45202 (US)
Representative:	Heide, Ute Procter & Gamble Service GmbH IP Department Frankfurter Strasse 145 61476 Kronberg im Taunus (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 10 July 2012 revoking European patent No. 1708938 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	H. Meinders
Members:	K. Poalas
	I. Beckedorf

Summary of Facts and Submissions

I. The patent proprietor (appellant) lodged an appeal against the decision revoking European patent No. 1 708 938.

II. Two oppositions (opponents 01 and 02) had been filed against the patent as a whole based on Article 100(a) EPC (lack of novelty and inventive step), on Article 100(b) EPC (insufficient disclosure) and on Article 100(c) EPC (unallowable amendments).

III. The opposition division found that the subject-matter of claim 1 of the patent as granted does not involve an inventive step and that claim 1 of each of the then valid first and second auxiliary requests do not meet the requirements of Article 123(2) EPC.

IV. Oral proceedings before the Board took place on 9 September 2015.

Although having been duly summoned, respondent 01 (opponent 01) did not attend the oral proceedings, as announced with letter dated 28 July 2015. According to Rule 115(2) EPC and Article 15(3) RPBA, proceedings were continued without that party.

The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted with a printing error in the wording of claim 1 being corrected in accordance with the main request filed with letter of 7 August 2015, or, in the alternative, that the patent be maintained in amended form on the basis of one of the sets of claims filed as auxiliary requests 1 to 3 with letter of 7 August 2015.

The respondents 01 and 02 (opponents 01 and 02) requested (respondent 01 in writing) that the appeal be dismissed.

V. The following documents of the opposition proceedings are relevant for the present decision:

D1 : JP 2003 104472 A
D1a: translation into English of D1.

Reference to the above-mentioned documents in the present decision is to "D1/D1a", considering thereby the translation to be true to the Japanese original, which was not contradicted by the appellant.

VI. Claim 1 according to the **main request** reads as follows:

"1. Packaging unit (17) comprising a first side (18) and an opposite second side (20), the packaging unit (17) comprising a number of folded absorbent articles (1), each article having a front end portion (21), a rear end portion (22), and a crotch portion (23) arranged between the end portions,
the articles (1) further comprising absorption bodies (6), each absorption body (6) comprising a front transverse edge (36) arranged at the front end portion (21) of the article (1), and a rear transverse edge (37) arranged at the rear end portion (22) of the article (1), each article (1) being folded along a substantially transverse fold line (41) arranged in the crotch portion (23), each article (1) having a fold area (11), and a number of the articles (1) being oriented with their fold areas (11) at the first side (18) of the packaging unit (17), and the remaining articles (1) in the packaging unit (17) being oriented with their fold areas (11) at the second side (20) of

the packaging unit (17), wherein the number of front transverse edges (36) plus the number of rear transverse edges (37) at the first side (18) of the packaging unit (17) is at most equal to 120% of the number of fold areas (11) at the first side (18) of the packaging unit (17), and in that the number of front transverse edges (36) plus the number of rear transverse edges (37) at the second side (20) of the packaging unit (17) is at most equal to 120% of the number of fold areas (11) at the second side (20) of the packaging unit (17), and wherein the absorbent articles (1) in the packaging unit (17) are folded about substantially transverse fold lines (41) arranged substantially at the centre of the absorption bodies (6) in the longitudinal direction of the absorption bodies (6), articles (1) oriented with their substantially transverse fold lines (41) at the first side (18) of the packaging unit (17) being offset in a direction away from the second side (20) of the packaging unit (17), and articles (1) oriented with their substantially transverse fold lines (41) at the second side (20) of the packaging unit (17) are offset in a direction away from the first side (18) of the packaging unit (17), the articles (1) arranged with their fold lines (41) at the first side (18) of the packaging unit (17) being offset by a distance (T) of 5 — 30 mm, preferably 5 — 15 mm, in relation to articles (1) arranged with their fold lines (41) at the second side (20) of the packaging unit (17), and wherein the absorbent articles (1) in the packaging unit (17) are arranged in a row".

Claim 1 according to the **first auxiliary request** differs from claim 1 according the main request through the additional final feature "such that the absorbent articles are pressed together when subjected to a

compression effected at right angles to the material layers of the absorbent articles".

In claim 1 according to the **second auxiliary request** the range of "at most equal to 120%" in claim 1 according to the main request has been limited to 0%.

Claim 1 according to the **third auxiliary request** discloses both limitations of the first and second auxiliary requests over claim 1 according the main request.

VII. The appellant's arguments, in so far as they are relevant to the present decision, may be summarised as follows:

D1/D1a does not teach where exactly the edges of the absorbent core region, directed towards the waistband of the diaper, are located.

D1/D1a teaches therefore a packaging unit having a number of diapers being arranged one next to the other without any offset lying between 5 and 30 mm, as claimed in claim 1 according to the main request.

The problem to be solved is the decrease of the overall volume of a package of absorbent articles without the formation of permanent folding lines at the fold areas in the crotch portion.

The solution to this problem is defined in claim 1 according the main request via the selection of the offset being between 5 and 30 mm.

The skilled person starting from D1/D1a and seeking to solve the above-mentioned problem would not be guided

towards the invention according to claim 1, since said document does not disclose such an offset value range.

Not only that, but it appears from figure 4 of D1/D1a that the distance between the respective ends of the absorbent core region 25 and the waist edges of the diapers is considerably wider than the width of the elastic waist portion and appears to extend over approximately half the overall length of the folded diaper. The consequence of this arrangement is that the absorbent core region of each diaper will essentially fit into the no-core-containing peripheral waist region of the adjacent diapers, so that almost no overlapping of the absorbent core regions of adjacent diapers takes place. Therefore, when the stack of diapers is compressed, the compression takes place over the whole surface of the diapers resulting thereby in permanent folding lines at the crotch portions.

The provision of an upper offset limit of a maximum of 30mm as defined in claim 1 according the main request ensures that the core areas of adjacent diapers overlap substantially. These thicker overlapping areas of the absorbent core region define the total height of the compressed stack leaving thereby more free space at the fold areas, because the adjoining diapers each have, at that location, their waist areas, without core material. In this way the occurrence of permanent folding lines at the crotch portions is prevented.

For this reason, the subject matter of claim 1 according to the main request involves an inventive step.

None of the claims 1 according to the first to third auxiliary requests have additional features over claim

1 according to the main request addressing the issue of inventive step.

VIII. Respondent 02's arguments, in so far as they are relevant to the present decision, may be summarised as follows:

The packaging unit of claim 1 according to the main request differs from the one known from figure 4 of D1/D1a in that a specific numeric range of 5 - 30 mm for the offset distance T is claimed in claim 1.

The patent in suit does not disclose any unexpected advantageous effect associated to offsetting the absorbent core 5 - 30 mm vs. for example offsetting the core by 3 or by 35 mm. Also the appellant has not provided any evidence that an offset of 5 mm to 30 mm is advantageous over any other offset.

As no unexpected advantages can be attributed to the specified range for the offset distance, the objective technical problem of the offset range as claimed in claim 1 can be seen to be merely a choice of an appropriate length for the absorbent core region within the diaper known from Dl/D1a.

The offset distance between the respective edges of an absorbent core region and the diaper's waist edges is dictated purely by the dimensions of both the absorbent core and the overall diaper. The skilled person would of course choose an absorbent core region of appropriate length for the desired purpose, namely to provide sufficient absorbent material. The offset distance will generally be smaller in the case of a smaller article, such as a diaper for a baby and larger in the case of a larger article, e.g. an adult

incontinence garment.
Once a suitable width for the peripheral end portions in the waist region has been provided, this width will be obviously within the offset value range claimed in claim 1, because the absorbent core will extend up to the peripheral end portions in the waist region.

The selection of a range of 5 mm to 30 mm is therefore merely a matter of routine design choice when designing a diaper.

For the above mentioned reasons, claim 1 according to the main request does not involve therefore an inventive step.

The first to third auxiliary requests filed late with letter of 7 August 2015 should not be admitted into the appeal proceedings.

Reasons for the Decision

1. *Claim 1 according to the main request – Inventive step, Article 56 EPC*

1.1 It is undisputed that the offset distance T as claimed in claim 1 is the distance between the crest of the fold area of an absorbent article arranged with its fold line at a first side of a packaging unit and the front and rear transverse edges of the absorption body of an adjacent absorbent article arranged with its fold line at a second side of said packaging unit. This is confirmed in the patent in suit, paragraph 68.

1.2 Figure 4 of D1/D1a shows a packaging unit with two groups of diapers disposed in a head to tail

configuration of the groups, each of said diapers being structured as depicted in figure 3. Figure 3 shows for a diaper two waist regions without any absorbent core extending between the waist edges of the diaper and the transverse edges of the absorbent core region 25, said waist region forming the trunk-surrounding peripheral end portions 19. Given that the folded diapers depicted in figure 4 have the configuration of figure 3 the diapers in one group shown in figure 4 have automatically an offset distance with respect to the diapers of the other group. This offset corresponds to the width of the peripheral end portions 19, just as it is defined in the patent in suit, paragraph 68.

1.3 Given that D1/D1a does not disclose any numeric values for the width of the peripheral end portions 19 of the diapers, the packaging unit of claim 1 differs from the one depicted in figure 4 of D1/D1a in that the offset distance T is within the specific numeric range of 5 – 30 mm.

1.4 The effect of said differentiating feature is that the width of the peripheral end portions 19 of the diapers is suitable for its purpose; being a waist band (e.g. by providing space for the necessary elastic bands).

1.5 The Board therefore agrees with the respondent that the objective problem to be solved in the present case is to be seen as the dimensioning of the width of the peripheral end portions of the diapers known from D1/D1a, i.e. putting into practice the invention disclosed in D1/D1a.

1.6 The skilled person looking at the figures 3 and 4 of D1/D1a and being familiar with common dimensions of diapers and typical widths of peripheral end portions

(i.e. typically the region where the topsheet and backsheet are glued together without an absorbent core being present therebetween), would routinely adjust the width of said portions to the overall dimensions of the diaper, i.e. adapt it to the size of the wearer. For the presence of elastic bands 5 mm is indeed a minimum, for a comfortable width of the waistband the skilled person would tend to have a larger width. The latter finds its limit at the absorbent core transverse edges, which should not be lowered too much, to maintain sufficient absorbent material. 30 mm would in that respect be an acceptable compromise.

1.7 With respect to the latter, the appellant argued that the skilled person could just as well have gone beyond the 30 mm limit. The Board does not agree, for the reasons already given above. In addition, it is to be noted that the patent in suit does not disclose any unexpected effect associated with the offsetting of 5 - 30 mm. The end points are not critical, in the sense that an offset of 35 mm is to be avoided for particular reasons. That it should not be less than 5 mm is clearly due to the presence of the waist elastic bands. This fact was not disputed by the appellant.

1.8 Therefore, the Board considers that the skilled person by routine design choices when making a diaper will arrive at a width for the peripheral end portion falling in the claimed range, which therefore cannot support inventive step.

1.9 The appellant also argues that the teaching of D1/D1a lies in the avoidance of the formation of a gap between each pair of adjacent diapers and accordingly to the improvement of the packing efficiency for the diapers within the package, see paragraphs [0022] and [0042] in

D1/D1a. Accordingly, the length dimension of the absorbent core is chosen to extend only just over the half-length of the diaper. This would be confirmed by the extension of the dotted areas shown in figure 4 of D1/D1a. In that way, with the diapers in an alternating head to tail arrangement, the absorbent core portion of each diaper would essentially fit into the non-core containing area of an adjacent diaper, especially when the stack of diapers is compressed. In other words, there would hardly be an overlap of the absorbent core areas of adjacent diapers according to the teaching of D1/D1a. As a consequence, in D1/D1a the offset would be much greater than the claimed offset of maximum 30 mm.

1.10 The Board cannot follow the above-mentioned appellant's argument for the following reasons:

1.10.1 Figure 3 of D1/D1a shows the structure of the diapers packaged in the packages depicted in figure 4. The longitudinally opposite ends 16a of the absorbent core 16 are depicted as dashed lines and define the front and rear transverse edges of the absorbent core region 25. The trunk-surrounding peripheral end portions 19 extend between said longitudinally opposite ends 16a of the absorbent core 16 and the transverse waist ends of the diaper. It is clear from said figure to the skilled person that the trunk-surrounding peripheral end portions 19, up to which the absorbent core extends, i.e. which are void of absorbent material, are small relative to the total longitudinal extension of the diaper and to the extension in the same direction of the absorbent core. The dotted areas in figure 4 are therefore not the entire extent of the absorbent core.

1.10.2 In this respect, the Board estimates that these dotted areas in figure 4 represent the inwardly folded leg

side portions 21 and not the absorbent core region, the latter as argued by the appellant.

1.10.3 D1/D1a therefore does not teach such a provision of a very short absorbent core nor that it "snugly fits" in the space not occupied by the absorbent core of the adjacent diaper. This would be in contradiction with the depiction of the structural parts of the diapers in figure 3 and the teaching of paragraph [0021] of D1/D1a. Accordingly, the absorbent core areas of the diapers disposed in a head to tail configuration in figure 4 overlap substantially with each other, but leave sufficient space at the peripheral end portions of half of the diapers to accommodate the folds in the crotch areas of the other half of the diapers. This space is the claimed "offset".

1.10.4 The Board finds therefore no basis in D1/D1a for the appellant’s argument that said document teaches against an overlapping of the absorbent core areas of the diapers positioned head to tail in figure 4.

1.11 In the written submissions, the appellant had argued that in comparison with the standard manner of packaging diapers, the invention provided that the diapers arranged in an alternating head to tail position were shifted outwards width-wise to the extent of the offset, such that the folded crotch region of the diaper did not find next to it the absorbent core of the adjacent diaper. This allowed for a higher compression rate in the height direction of the package, without compression of the folded crotch region.

1.12 The Board considers that this may well have been the case for the package the inventors started from. It is

however, a feature already present in the package of D1/D1a and therefore cannot help the appellant in resulting in further distinguishing features or in further support for inventive step.

1.13 For the above-mentioned reasons the subject-matter of claim 1 according the main request does not involve an inventive step over the teaching of D1/D1a in combination with the general technical knowledge and practice of the person skilled in the art (Article 56 EPC).

2. *Claims 1 according to the first to third auxiliary requests – Inventive step, Article 56 EPC*

The appellant stated during the oral proceedings that the additional features of claims 1 according to the first to third auxiliary requests over claim 1 of the main request do not address the lack of inventive step issue with the subject-matter of claim 1 according to the main request. The Board concurs. Therefore, the finding under point 1.13 above also applies to the claims 1 according to the first to third auxiliary requests, which as a consequence do not involve an inventive step (Article 56 EPC).

3. *Procedural matters*

The above-mentioned Board's conclusion in respect of lacking of inventive step of the subject-matters of the claims 1 for all requests over the teaching of D1/D1a in combination with the general technical knowledge and practice of the person skilled in the art is the basis for taking the present decision. There is therefore no need to decide on the question of the time of filing of the auxiliary requests as raised by the respondent.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Nachtigall H. Meinders

Decision electronically authenticated