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**Datasheet for the decision  
of 5 May 2021**

**Case Number:** T 1005/17 - 3.3.06

**Application Number:** 07767516.3

**Publication Number:** 2039504

**IPC:** B32B5/14

**Language of the proceedings:** EN

**Title of invention:**

SHEET MEMBER, HIGH-DENSITY REGION-CONTAINING SHEET  
MANUFACTURING METHOD AND DISPOSABLE DIAPER USING SHEET MEMBER

**Patent Proprietor:**

Unicharm Corporation

**Opponent:**

THE PROCTER & GAMBLE COMPANY

**Headword:**

Sheet member for diaper/Unicharm

**Relevant legal provisions:**

EPC Art. 123(2)

RPBA 2020 Art. 13(2)

**Keyword:**

Amendment after summons - exceptional circumstances (no)  
Amendments - intermediate generalisation

**Decisions cited:**

T 0273/10

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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Case Number: T 1005/17 - 3.3.06

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.06**  
**of 5 May 2021**

**Appellant:** Unicharm Corporation  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
14 February 2017 maintaining European Patent  
No. 2039504 in amended form.**

**Composition of the Board:**

**Chairman** J.-M. Schwaller  
**Members:** S. Arrojo  
C. Brandt

## **Summary of Facts and Submissions**

- I. The appeals filed by the patentee and by the opponent are directed against the decision of the opposition division to maintain European patent No. 2 039 504 on the basis of the claims according to auxiliary request 8 filed during oral proceedings on 21 November 2016.
- II. In its grounds of appeal, the patentee requested to set aside the decision and to maintain the patent as granted. As an auxiliary measure, it requested to maintain the patent on the basis of the claims according to one of auxiliary requests 1 to 7 filed therewith. It also requested not to admit D5, a document submitted during first instance proceedings.
- III. In its grounds of appeal, the opponent reiterated in particular its objections under Article 123(2) EPC and requested that the patent be revoked in its entirety.
- IV. With its reply dated 7 November 2017, the patentee filed annexes 1 and 2 and new auxiliary requests 2-8 substituting the previous auxiliary requests 2-7. It also indicated that if these new auxiliary requests were not admitted, the previous auxiliary requests were maintained.
- V. With its reply, the opponent requested not to admit auxiliary requests 2-5 and 7 filed with the patentee's grounds of appeal.
- VI. In its preliminary opinion, the Board informed the parties that the main and first to seventh auxiliary requests did not appear to meet the requirements of Article 123(2) EPC, but that auxiliary request 8

appeared to be admissible and to meet the requirements of Article 123(2) EPC.

- VII. With a letter dated 1 March 2021, the opponent submitted additional arguments against the admissibility of auxiliary request 8 as well as objections under Articles 83, 84, 123(2) and 56 EPC against this request.
- VIII. With a letter dated 31 March 2021, the patentee requested not to admit the opponent's objections filed on 1 March 2021, and submitted new auxiliary requests 8 to 11 in response thereto.
- IX. At the oral proceedings held on 5 May 2021, the board decided to not admit into the proceedings auxiliary requests 8, 9 and 11. The final parties' requests were established to be as follows:

The **patentee-appellant** requested to set aside the decision of the opposition division and to maintain the patent on the basis of the **main request** filed with the statement of grounds of appeal on 22 June 2017, with claim 9 thereof reading:

*"9. A method of manufacturing a sheet member (5), comprising compressing a sheet (1) with shaping rolls (3), each having a toothed area (31), to manufacture a high-density region-containing sheet (2) having a plurality of high-density regions (21) and a plurality of low-density regions (22) formed therein and characterized in further comprising the step of attaching a pair of high-density region-containing sheets (2) to an elastic member (4)."*

As an auxiliary measure it requested to maintain the patent in amended form on the basis of one of:

- **auxiliary request 1** filed with the statement of grounds of appeal on 22 June 2017, with claim 4 thereof corresponding to claim 9 of the main request;

- **auxiliary request 2** filed on 7 November 2017, with claim 3 thereof reading:

*"3. A method of manufacturing a sheet member (5), comprising compressing a sheet (1) with shaping rolls (3), each having a toothed area (31), to manufacture a high-density region-containing sheet (2) having a plurality of high-density regions (21) and a plurality of low-density regions (22) continuously formed therein, such that the high-density regions (21) substantially alternate with the low-density regions (22) in a predetermined direction, and further comprising the step of attaching a pair of high-density region-containing sheets (2) to an elastic member (4) wherein the elastic member (4) is arranged in the predetermined direction in which the plurality of high-density regions (21) substantially alternate with the plurality of low-density regions (22), at least a part of each of the plurality of high-density regions (21) is attached to the elastic member (4) in an expanded state, the elastic member is arranged between the pair of high-density region-containing sheets, and the high-density region-containing sheets (2) are formed to have concavities and convexities, in the predetermined direction, in the sheet member."*

- **auxiliary request 3** filed on 7 November 2017, with claim 2 thereof corresponding to claim 3 of auxiliary

request 2 with the additional step of *"coating an elastic member with an adhesive"*.

- **auxiliary request 4** filed on 7 November 2017, with claim 1 thereof corresponding to claim 2 of auxiliary request 3.

- **auxiliary request 5** filed on 7 November 2017, with claim 1 thereof corresponding to that of auxiliary request 4, wherein the feature *"predetermined direction"* has been amended to *"longitudinal direction"*.

- **auxiliary request 6** filed on 7 November 2017, with claim 1 thereof corresponding to claim 1 of auxiliary request 5 with the additional indication that the sheets are made of *"nonwoven fabric"*;

- **auxiliary request 7** filed on 7 November 2017, with claim 1 thereof corresponding to claim 1 of auxiliary request 6, further indicating that the concavities and convexities were formed as a result of the compression of the elastic member (i.e. *"the compression allows the high-density region-containing sheet (2) to have concavities and convexities in the longitudinal direction"*);

- **auxiliary request 10** filed with letter dated 31 March 2021 (and corresponding to auxiliary request 8 filed on 7 November 2017), with claim 1 thereof reading:

*"1. A method of manufacturing a sheet member (5), comprising compressing a nonwoven fabric sheet (1) with shaping rolls (3), each having a toothed area (31), to manufacture a high-density region-containing sheet (2)*

*having a plurality of high-density regions (21) and a plurality of low-density regions (22) continuously formed therein, such that the high-density regions (21) substantially alternate with the low-density regions (22) in the longitudinal direction of the sheet, and coating an elastic member with an adhesive by directly applying adhesive to the elastic member, and further comprising the step of attaching a pair of high-density region-containing sheets (2) to the elastic member (4), wherein*

*the low-density regions of the sheets are immediately stripped due to low fibre density even if the elastic member is made to adhere thereto, such that only the high-density regions of the sheets are attached to the elastic member,*

*the sheet (1) is compressed between a pair of the shaping rolls (3) that rotates in directions opposite to each other,*

*the elastic member (4) is arranged in the longitudinal direction in which the plurality of high-density regions (21) substantially alternate with the plurality of low-density regions (22),*

*at least a part of each of the plurality of high-density regions (21) is attached to the elastic member (4) in an expanded state,*

*the elastic member is arranged between the pair of high-density region-containing sheets such that the two high-density region-containing sheets are joined to each other with the elastic member sandwiched therebetween, and*

*the high-density region-containing sheets (2) are formed to have concavities and convexities, in the longitudinal direction, in the sheet member."*



The **opponent-appellant** requested to set aside the decision of the opposition division and to revoke the patent in its entirety.

## **Reasons for the Decision**

### 1. Main request - Article 123(2) EPC

The requirements of Article 123(2) EPC are not met.

#### 1.1 Claim 9 at issue corresponds to claim 9 as filed with the following added feature:

*"... further comprising the step of attaching a pair of high-density region-containing sheets (2) to an elastic member (4)."*

#### 1.2 The patentee argued that this feature was supported by the disclosure on page 18, lines 2-9 of the description as filed (it also referred to page 25, first full paragraph and page 34, first full paragraph) and that a skilled person reading these passages would directly and unambiguously derive that a pair of high-density region-containing sheets could be attached to an elastic member. While some of the details in the embodiment on pages 17-19 and figures 4-5 were not defined in the claim, the skilled person would understand that these aspects were only described for illustration purposes and not for limiting the scope of the invention.

#### 1.3 The Board does not follow this argumentation for the following reasons:

##### 1.3.1 The above amendment is based on a specific embodiment of the invention described on pages 17-19 and figures

4-5 of the application as filed. To comply with the requirements of Article 123(2) EPC, the claim must include all the essential features of this embodiment, i.e. all the features solving the problem underlying the claimed invention (see e.g. T 0273/10), because the omission of such features would lead to an unallowable intermediate generalisation of the information contained in the original application.

1.3.2 As indicated on page 2, 1st and 2nd full par. of the original description, the invention intends to solve the problems associated with diapers forming large wrinkles and pleats having a random rigidity distribution, and proposes solutions to obtain a *"diaper forming smaller wrinkles and pleats"*. Contrary to the patentee's arguments, this effect is not an optional part of the embodiment on pages 17-19 but the main object thereof. This is apparent in view of the passage on page 18, lines 23-26 as filed and also looking at figure 5, which explicitly depicts the formation of wrinkles when the method described in the relevant embodiment is carried out.

1.3.3 The Board therefore considers that both the formation of small wrinkles and the technical features required to obtain this effect constitute essential aspects of the embodiment described on pages 17-19 and figure 4-5. Thus, to comply with the requirements of Article 123(2) EPC (i.e. to avoid an unallowable intermediate generalisation), any invention based on the above-mentioned embodiment must include the following features:

a) flexible and small wrinkles are formed when the elastic member contracts as described on page 18, lines 23-26 as filed;

b) the sheets are attached to the elastic member in an expanded state (page 18; page 25, first full par. and page 28, first full par.), as it is the relaxation or compression of the expanded elastic member attached to the sheets which leads to the formation of wrinkles and pleats;

c) the elastic member is attached to the high-density regions of the sheets only, as explained on the first full paragraph of page 18 as filed;

d) the sheets and the elastic member are configured to satisfy equation 1 on page 19 since, as indicated in lines 6-11 of this page, no pleats are formed otherwise.

1.3.4 Since claim 9 omits all the above features a) to d), its subject-matter represents an unallowable intermediate generalisation of the information in the application as filed, and thus, contrary to the requirements Article 123(2) EPC, includes embodiments which are not directly and unambiguously derivable therefrom.

2. Auxiliary request 1 - Article 123(2) EPC

Claim 4 of this request is identical to claim 9 of the main request. It follows that the same arguments and conclusions as presented for the main request apply to this request, which does therefore not meet the requirements of Article 123(2) EPC.

3. Auxiliary request 2 - Article 123(2) EPC

3.1 Claim 3 of this request reads as follows (roman numbers added by the Board):

**(I)** "A method of manufacturing a sheet member (5), comprising compressing a sheet (1) with shaping rolls (3), each having a toothed area (31), to manufacture a high-density region containing sheet (2) having a plurality of high-density regions (21) and a plurality of low-density regions (22) continuously formed therein,

**(II)** such that the high-density regions (21) substantially alternate with the low-density regions (22) in a predetermined direction,

**(III)** and further comprising the step of attaching a pair of high-density region-containing sheets (2) to an elastic member (4) wherein

**(IV)** the elastic member (4) is arranged in the predetermined direction in which the plurality of high-density regions (21) substantially alternate with the plurality of low-density regions (22), at least a part of each of the plurality of high-density regions (21) is attached to the elastic member (4) in an expanded state, the elastic member is arranged between the pair of high-density region-containing sheets,

**(V)** and the high-density region-containing sheets (2) are formed to have concavities and convexities, in the predetermined direction, in the sheet member."

3.2 Point (I) corresponds to claim 9 as originally filed, points (II) and (IV) are based on claim 1 as originally filed, and point (V) is based on claim 2 as originally filed.

3.3 The patentee argued that, although method claim 9 as filed was not dependent on the entity (i.e. the sheet member) defined in claims 1 and 2 as filed, the combination of these claims did not add any new information because it was apparent that the method claim 9 was oriented to the manufacturing of a sheet

member as defined in the previous entity claims.

Further it argued (see last par. of page 4 and 1st par. of page 5 in its reply to appeal and annex 1 filed with this reply) that point (III) of claim 3 at issue was based on claim 7 as originally filed, and that, consequently, there was no need to rely on the content of the embodiment on pages 17-19 and figures 4 and 5 of the specification as filed.

3.4 The Board does not follow this argumentation for the following reasons:

3.4.1 First, in view of the fact that the sheet claims 1-8 and the method claim 9 as filed were defined using different features, and that claim 9 did not refer back (not even optionally) to any one of the sheet claims 1-8, the Board does not see a basis in the original application for defining a subject-matter based on a combination of features from both independent approaches.

3.4.2 Furthermore, contrary to the patentee's allegations, point (III) cannot be based on claim 7 as filed, because according to this claim "*the elastic member is coated with an adhesive, and is attached to the first sheet and the second sheet of the sheet member, to join the elastic member and the high-density region to each other*", but point (III) of claim 3 at issue omits the coating with an adhesive and does also not define joining the elastic member and the high-density region of the sheets, but (instead) joining the elastic member and the two high-density region-containing sheets. Additionally, while in point (III) both sheets are defined as "*high-density region-containing sheets*", in claim 7 as filed (as well as in all the related claims 1-6 and 8 as filed) only the first sheet is defined as

a high-density region-containing sheet (see in particular claim 1 as filed).

Consequently, the Board agrees with the opponent in that point (III) of claim 3 is in fact based on the embodiment on pages 17-19 and figures 4-5.

- 3.4.3 Claim 3 (point (IV)) defines that *"at least a part of each of the plurality of high-density regions (21) is attached to the elastic member (4) in an expanded state"*. While this implies that the elastic member is attached in an expanded state to the high-density regions of the sheets, the claim does not restrict the scope to an elastic member which is attached only to the high-density regions of the sheets, as disclosed in the embodiment on pages 17-19 as filed. The claim does therefore not define the feature in point 1.3.3 c) above, which is considered to be essential for the embodiment on pages 17-19 used as basis for the amendments.
- 3.4.4 The claim does also not define the essential features of the embodiment on pages 17-19 identified in points 1.3.3 a) or d) above.
- 3.5 The Board thus concludes that claim 3 includes embodiments which are not directly and unambiguously derivable from the application as filed and so extends beyond the content of the application as filed, contrary to the requirements of Article 123(2) EPC.
4. Auxiliary requests 3 and 4 - Article 123(2) EPC
- 4.1 Method claim 2 of auxiliary request 3 and method claim 1 of auxiliary request 4 correspond to claim 3 of auxiliary request 2 with the additional step of

*"coating an elastic member with an adhesive"*. The addition of this feature does not overcome any of the objections raised against claim 3 of auxiliary request 2, because the features identified in points 1.3.3 a), c) or d) above, which are described as essential for the embodiment on pages 17-19 as filed on which the amendments are based, are still omitted.

- 4.2 Consequently, claim 2 of auxiliary request 3 and claim 1 of auxiliary request 4 are considered to extend beyond the content of the application as filed for the same reasons presented for auxiliary request 2 and so do not meet the requirements of Article 123(2) EPC.
5. Auxiliary requests 5 and 6 - Article 123(2) EPC
- 5.1 Claim 1 of auxiliary request 5 corresponds to that of auxiliary request 4, wherein the feature *"predetermined direction"* has been amended to *"longitudinal direction"*.
- 5.2 Claim 1 of auxiliary request 6 corresponds to claim 1 of auxiliary request 5 with the additional indication that the sheets are made of *"nonwoven fabric"*.
- 5.3 The addition of these features does not overcome any of the objections raised against auxiliary requests 2-4, because the features identified in points 1.3.3 a), c) or d) above, which are described as essential for the embodiment on pages 17-19 as filed on which the amendments are based, are still omitted.
- 5.4 The method claims in these requests are thus considered to extend beyond the content of the application as filed and do not meet the requirements of Article 123(2) EPC.

6. Auxiliary request 7 - Article 123(2) EPC
  - 6.1 Claim 1 of this request corresponds to claim 1 of auxiliary request 6 wherein the formation of concavities and convexities is said to result from the compression of the elastic member, which appears to correspond to feature 1.3.3 a) above.
  - 6.2 The opposition division concluded that the then 8th auxiliary request (corresponding to present auxiliary request 7) met the requirements of Article 123(2) EPC, because its subject-matter was based on a combination of claims 9-11 and the description on page 18, lines 2-18 as originally filed.
  - 6.3 The Board disagrees with these conclusions, because the claim still fails to define features 1.3.3 c) and d) above, both of which are considered to be essential features of the embodiment on pages 17-19 on which part of the amendments are based.
  - 6.4 Therefore, contrary to the requirements Article 123(2) EPC, the subject-matter of claim 1 is considered to be an intermediate generalisation which includes embodiments not directly and unambiguously derivable from the application as originally filed.
7. Auxiliary request 10 - Article 123(2) EPC
  - 7.1 At the oral proceedings, the patentee argued that the subject-matter of claim 1 of this request was supported by the following combination of claims and passages of the description as filed: claims 1, 9, 10, 11 and 12; page 1, 1st paragraph; page 13, line 7; page 17, line 19; page 18, lines 2-5, 6-12, 12-14, 16 and 17-23; page 19, lines 18-19; and page 28.



- 7.2 The board first notes - as already mentioned above - that there is no basis in the application as filed for combining the features of the product and method claims. The patentee argued that it was apparent from the application as a whole that the method claims were also aimed at manufacturing the product defined in the claims. This is however not derivable from the claims as filed, since, as indicated in point 3.4.1 above, the method and product claims are not dependent on one another, and the method claims as filed relate only to the manufacturing of the high density region-containing sheets and not of the sheet member.
- 7.3 It is also not apparent for the board what the exact meaning of the feature *"the high-density region-containing sheets (2) are formed to have concavities and convexities, in the longitudinal direction, in the sheet member"* should be. This feature is, according to the patentee, based on claim 10 as filed, which defines a method to manufacture a high density region-containing sheet and not a sheet member including an elastic member and forming wrinkles. Thus, it is not clear whether the term *"concavities and convexities"* refers, as the patentee argued, to the wrinkles formed in the sheet member or, as argued by the opponent, to the pattern formed by the high and low density regions when the sheet is compressed with the shaping toothed rolls. In any case, even if the board assumes that the feature *"concavities and convexities"* corresponds to the wrinkles, the claim still fails to define that these are formed as a result of the elastic member being compressed. Claim 1 at issue therefore does not define the feature 1.3.3 a) above, considered to be an essential part of the embodiment on pages 17-19 on which part of the amendments are based.

7.4 Claim 1 at issue also omits the feature 1.3.3 d) above, also considered to be an essential part of the embodiment on pages 17-19 on which part of the amendments are based. For the sake of completeness, it is also noted, considering the ambiguous definition of the wrinkles (see point 7.3 above), that the omission of feature 1.3.3 d) would also broaden the scope of protection to encompass sheet members having large pleats, the very same problem which the patent seeks to overcome (i.e. the formation of large pleats with a random rigidity distribution described as "background art" in the 1st and 2nd full par. of page 2 of the description as filed). Such embodiments clearly go beyond the exemplary method described on pages 17-19 as filed, on which part of the amendments are based.

7.5 Thus, contrary to the requirements of Article 123(2) EPC, the subject-matter of claim 1 at issue is considered to be an intermediate generalisation which includes embodiments not directly and unambiguously derivable from the application as filed.

8. Auxiliary requests 8, 9 and 11 - Admittance

The Board exercises its discretion under Article 13 RPBA 2020 not to admit these requests into the proceedings.

8.1 The patentee submitted these requests with letter dated 31 March 2021, i.e. long after the issuance of the summons to attend oral proceedings. The reason for the late filing was, according to the patentee, that said requests represented a response to the objections filed with the opponent's letter dated 1 March 2021.

8.2 The Board however observes that none of the arguments raised for the first time with the opponent's letter dated 1 March 2021 have been relied upon to conclude that the main request and auxiliary requests 1-7 and 10 are not allowable. The late filing of these new objections by the opponent (i.e. with the above mentioned letter of 1 March 2021) can therefore not justify the admittance of the late filed auxiliary requests 8, 9 and 11.

Consequently, the Board sees no exceptional circumstance under Article 13(2) RPBA 2020 which could justify the admittance of these requests at this late stage of the proceedings. The auxiliary requests 8, 9 and 11 are therefore not part of the proceedings.

9. Document D5 (cited by the opponent) has not been cited or relied upon in the present decision, there is therefore no need to decide on the question of its admittance.

10. Since none of the requests filed by the patentee are admissible and meet the requirements of the EPC, the appeal of the opponent succeeds.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated