

**Internal distribution code:**

- (A) [ - ] Publication in OJ
- (B) [ - ] To Chairmen and Members
- (C) [ - ] To Chairmen
- (D) [ X ] No distribution

**Datasheet for the decision  
of 7 June 2021**

**Case Number:** T 0307/18 - 3.2.06

**Application Number:** 04751910.3

**Publication Number:** 1622556

**IPC:** A61F13/20

**Language of the proceedings:** EN

**Title of invention:**

A PROCESS FOR PRODUCING STABILIZED TAMPONS

**Patent Proprietor:**

THE PROCTER & GAMBLE COMPANY

**Opponent:**

Johnson & Johnson GmbH

**Headword:**

**Relevant legal provisions:**

EPC Art. 54, 56, 83

**Keyword:**

Sufficiency of disclosure - (yes)

Novelty - (yes)

Inventive step - (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 0307/18 - 3.2.06

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.06**  
**of 7 June 2021**

**Appellant:** Johnson & Johnson GmbH  
(Opponent) Johnson & Johnson Platz 2  
41470 Neuss (DE)

**Representative:** Metten, Karl-Heinz  
Boehmert & Boehmert  
Anwaltspartnerschaft mbB  
Pettenkoferstrasse 22  
80336 München (DE)

**Respondent:** THE PROCTER & GAMBLE COMPANY  
(Patent Proprietor) One Procter & Gamble Plaza  
Cincinnati, OH 45202 (US)

**Representative:** Elkington and Fife LLP  
Prospect House  
8 Pembroke Road  
Sevenoaks, Kent TN13 1XR (GB)

**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
30 November 2017 concerning maintenance of the  
European Patent No. 1622556 in amended form.**

**Composition of the Board:**

**Chairman** M. Harrison  
**Members:** M. Hannam  
W. Ungler

## Summary of Facts and Submissions

- I. In a first appeal (T0067/13) relating to the present opposed patent, the Board in its present composition remitted the case back to the opposition division for further prosecution on the basis of an amended main request.
- II. In its interlocutory decision, the opposition division found the patent according to this amended main request to meet the requirements of the EPC.
- III. The appellant (opponent) appealed this interlocutory decision. It requested that the interlocutory decision be set aside and the patent be revoked. The respondent (patent proprietor) requested that the appeal be dismissed or, in the alternative, that the patent be maintained according to auxiliary request 1.
- IV. The following documents, referred to by the appellant in its grounds of appeal, are relevant to the present decision:
- E1 US-A-4 326 527  
E2 US-A-2 077 231  
E5 Test report of 3P Innovation Ltd, Warwick, UK
- V. The Board issued a summons to oral proceedings and a subsequent communication under Article 15(1) RPBA 2020 containing its provisional opinion, in which it indicated *inter alia* that the invention appeared to be sufficiently disclosed (Article 83 EPC) and that the subject-matter of claim 1 appeared to be both novel (Article 54 EPC) and to involve an inventive step

(Article 56 EPC).

- VI. With letter of 1 February 2021 the respondent presented further arguments concerning inventive step.
- VII. With letter of 2 February 2021 the appellant presented further arguments under Article 83, Article 54 and Article 56 EPC.
- VIII. With its submission of 6 May 2021 the appellant informed the Board that it would not participate in the scheduled oral proceedings.
- IX. The Board subsequently cancelled the scheduled oral proceedings.
- X. Claim 1 of the main request reads as follows:

"A process for producing a stabilized compressed tampon, comprising the steps of:  
a. providing a compressed tampon pledget;  
characterized in that steps further comprise  
b. forcing a gas through said compressed tampon pledget to form a stabilized tampon, wherein said compressed tampon pledget is maintained within a permeable mold, the process further comprising the step of heating said gas and the step of humidifying said gas,  
the process further comprising:  
providing a gas supply opposed to a gas outlet, and a mold housing oriented there between that contains the tampon pledget within the permeable mold;  
providing a moisture supply means, heating means, and a temperature and humidity control means,  
wherein the incoming gas enters at the gas supply and the rate of the gas flow can be varied by a flow control means,

and wherein the heated and humidified gas flows into the mold housing and flows out the gas outlet."

XI. The appellant's arguments relevant to the present decision may be summarised as follows:

E5 should be admitted. It disclosed a report of stabilization effectiveness in tampons according to claim 1, using stabilization gas within the temperature and relative humidity ranges disclosed in the patent. As indicated in the report, no stabilization of the tampons was achieved, let alone uniform stabilization. This highlighted that the invention according to claim 1 was insufficiently disclosed. Further, a sole example of temperature and humidity was provided in the patent such that the boundaries of the claim could not be reliably determined. The degree of stabilization in terms of longevity i.e. 1 minute, 1 day, 1 month and also with regard to maintaining stabilized dimensions was also not defined. In addition, a broad range of possible absorbent materials were disclosed in paragraph [0028] of the patent which would require different stabilizing conditions that were not disclosed. Furthermore the size of pore required to render a mold permeable was not disclosed and the patent failed to describe how sub-microscopic pores would enable the mold to be permeable.

The subject-matter of claim 1 lacked novelty over E1 (see col. 1, lines 6 to 7 and 57 to 64; col. 3, lines 14 to 28). Forcing a gas through a tampon was no different to propelling a gas through it, and this covered both propelling through application of a positive pressure or through application of a vacuum on a given side thereof. The air in E1 would also

necessarily have a relative humidity between about 1% and about 100%.

E2 also deprived the subject-matter of claim 1 of novelty. It disclosed compressed tampon pledgets in a mold, stabilized with a flow of gas therethrough. E2 disclosed a blower 46 which forced heated air through the pledgets (see Fig. 4). The spring-actuated triggers 31 of E2 were present to prevent the compressed tampon pledget from being pushed out of the mold by the air pressure.

The subject-matter of claim 1 also lacked an inventive step. Starting from E1 and accepting the single differentiating feature of 'forcing a gas through the compressed tampon pledget to form a stabilized tampon', even if this stabilizing were to be reliably achieved in the patent, the skilled person was guided to the claimed solution by the blower in E2 forcing gas through the compressed tampon pledget.

If, instead, the skilled person would start from E2, and accepting that this failed to disclose any humidification of air which flowed through the pledget, E1 would have guided the skilled person to the claimed subject-matter, not least since it recommended preparing the pledgets in a humidification chamber with a relative humidity of 80%.

XII. The respondent's arguments relevant to the present decision may be summarised as follows:

The invention defined by claim 1 could be carried out by the person skilled in the art. It was known that high temperature and high humidity would stabilize a tampon, examples 1 to 4 in the patent providing an

exemplary combination. The range of gas temperature from 60°C to 210°C disclosed in the patent was the broadest range. The skilled person would select a temperature from that range in combination with an appropriate relative humidity in order to achieve stabilization. The test report E5 did not give rise to doubts about the ability of the skilled person to carry out the invention on the basis of the disclosure in the patent. All examples in E5 were carried out at a temperature outside the broad range disclosed in the patent, so the skilled person would not reasonably expect successful stabilization in those examples.

The subject-matter of claim 1 was novel over both E1 and E2. Both documents failed to disclose air being forced through the tampon pledgets. E1 simply disclosed the application of a vacuum to remove the wet air from the chamber (col. 1, lines 57 to 67), whereas E2 placed the tampons in dies with hot air circulating in the chamber; neither document disclosed forcing a gas through the compressed tampon pledget, be that by application of a pressure or a vacuum.

The subject-matter of claim 1 involved an inventive step when starting from E1 and combining the technical teaching of E2 with this. E1 failed to disclose at least the step of forcing a gas through the tampon pledget and E2 also failed to disclose or even suggest such a modification in order to reach the claimed subject-matter. Equally, starting from E2 which also failed to disclose at least the process step of forcing a gas through the tampon pledget, E1 failed to suggest the required modification in order to reach the claimed subject-matter.



## Reasons for the Decision

### *Main request*

#### 1. *Exclusion of E5*

1.1 In support of its contention that the invention lacked sufficiency due to the skilled person being unable to carry it out over the full breadth of claim 1, the appellant filed E5 with its grounds of appeal. This document had already been filed in the opposition proceedings, the opposition division however deciding not to admit E5 for lack of *prima facie* relevance.

1.2 In such cases (see e.g. G7/93, point 2.6) the Board's competence should normally be limited to establishing whether the first instance department has exercised its discretion in accordance with the right principles and that it has exercised its discretion in a reasonable way.

1.3 In reaching its decision not to admit E5, the opposition division noted that the claimed invention was not directed 'to the choice of a preferred range of temperature and/or humidity' for stabilizing tampons since heat setting for such a purpose was already known in the art, reference being made to paragraph [0003] of the patent (see paragraph 15 of the impugned decision). In other words, the opposition division saw the stabilizing gas temperature range and relative humidity range not to be part of the claimed invention and further that the stabilizing effect of these parameters was known to the skilled person. The opposition division thus concluded that the test report E5 was of no *prima facie* relevance to whether the skilled person

could carry out the invention or not, since appropriate tampon stabilizing gas conditions were known to the skilled person.

1.4 As regards the opposition division exercising its discretion in accordance with the right principles, it firstly established that the invention was not directed to a preferred range of temperature and/or humidity for stabilizing tampons (see page 4, first paragraph of its decision) and that the requirements for heat setting of tampons was known in the art. It then concluded that the test report was not relevant implicitly because appropriate temperature and relative humidity conditions for the stabilizing gas were known to the skilled person. The opposition division thus established what knowledge the skilled person was lacking, if anything, in order to be able to carry out the invention. Having concluded that the skilled person knew appropriate stabilizing gas conditions, paragraph [0003] of the patent indicating that heat setting of tampons was known in the art, the suggestion in E5 that certain combinations of gas temperature and relative humidity failed to stabilize a tampon was irrelevant to the question of whether the skilled person was able to carry out the invention.

1.5 The Board thus concludes that the opposition division did exercise its discretion regarding non-admittance of E5 in accordance with the right principles. Having established that the skilled person was aware of appropriate stabilizing gas conditions to be used, the indication in E5 that particular combinations of gas conditions (e.g. 50°C and 16 or 19% RH; see E5, Table 2), chosen from within the disclosed ranges for temperature and relative humidity for the stabilizing gas in the patent, failed to stabilize a tampon, was

irrelevant to the question of whether the invention was sufficiently disclosed.

1.6 The appellant's argument that E5 proved that the claimed teaching could not be carried out over the entire breadth of the claim is not accepted. Even though this concerns the substance of its objection based on E5, rather than simply the opposition division's exercise of discretion, it is noted that claim 1 does not define a temperature or relative humidity of the stabilizing gas to be used; the selection for these is left to the skilled person. The very broad ranges of temperature (60°C to 210°C; see paragraph [0041]) and relative humidity (about 1% to about 100%; see paragraph [0042]) indicated in the description would not be understood by the skilled reader as implying that every combination of temperature and relative humidity in the ranges would necessarily achieve effective stabilization. The selection in E5 of a temperature (50°C) allegedly at the bottom of the disclosed range (in fact, outside the range since the lowest value in the range is 60°C) and a relatively low relative humidity of 16 or 19%, is thus unsurprisingly unsuccessful in achieving the desired stabilization. Thus, even in substance, E5 does not give rise to doubt regarding the skilled person's ability to carry out the invention according to claim 1.

1.7 E5 is thus held inadmissible (Article 12(4) RPBA 2007) and consequently excluded from the appeal proceedings.

## 2. *Article 83 EPC*

The invention defined by claim 1 is disclosed in a manner sufficiently clear and complete for it to be

carried out by a person skilled in the art.

- 2.1 From their general knowledge and from the disclosure of the patent, the skilled person would be able to select a suitable temperature and humidity of the gas in order to successfully stabilise the tampon pledget. Whilst it is accepted that the scope of claim 1 when read literally might encompass any stabilising gas at any temperature, pressure, humidity and flowrate, this would not hinder the skilled person from selecting appropriate conditions for stabilisation. In this regard, it is noted that the skilled person would be aware of microwave and induction heating in order to stabilise tampons (see e.g. paragraph [0003] of the patent, which has not been contested as such) and so would know what combination of temperature and humidity is typically successful for stabilisation. The skilled person is also guided to the selection of appropriate parameters by the four examples in the patent, each example passing gas through the pledget at 100°C and 75% relative humidity. The disclosure in the patent is thus sufficient as regards the temperature and humidity of the stabilising gas.
- 2.2 The appellant's argument that a sole example of temperature and humidity is provided in the patent such that the boundaries of the claim cannot be reliably determined is not accepted. The skilled person knows that relative humidity is dependent upon the temperature at which it is measured such that, for the same amount of water vapour, gas at hotter temperatures will have lower relative humidities. The disclosed ranges of temperature (60°C to 210°C) and humidity (about 1% to about 100%) thus make sense to the skilled person and can be appropriately used by them.

2.3 As regards the claimed 'stabilized, compressed tampon', the term 'stabilized' is defined in paragraph [0019] of the patent, indicating that it describes a 'self-sustaining state', which itself is defined in paragraph [0016] as the sufficiency to which the tampon retains its compressed form. The appellant's argument that the degree of stabilization in terms of longevity (e.g. 1 minute, 1 day or 1 month) is not defined such that the skilled person does not know when the invention has been achieved, is not accepted. As also argued by the proprietor, stabilizing of tampons has been carried out, albeit using different means such as microwave heating, for many years and the skilled person would therefore know what is implied by a tampon being stabilized. The appellant's further contention that the degree of stabilization is not defined, i.e. what degree of reverting to the pre-stabilised dimensions is acceptable, for the same reasons, does not hinder the skilled person from carrying out the invention. They know what a stabilized tampon entails based on the condition having been achieved for many years. The patent itself also indicates a typical compressed tampon diameter of 8-20 mm in col.5, line 15, which is the desired, stabilized diameter of that typical tampon.

2.4 The appellant's argument that the variety of possible absorbent materials disclosed in paragraph [0028] of the patent would require different stabilizing conditions which were not disclosed also fails to deny the skilled person the promise of the invention. As already indicated in points 2.2 and 2.3 above, the skilled person knows the materials typically used in tampons and thus has experience of the conditions of temperature and relative humidity under which stabilizing of the respective materials occurs.

Consequently the skilled person would be able to select both suitable materials and suitable gas conditions to achieve the desired stabilization of the tampon.

Indeed, in the examples 1 to 4 of the patent, suggested absorbent materials for the tampon pledget and suitable parameters for the temperature and humidity of the stabilizing air are also provided, thus enabling the skilled person to carry out the invention.

2.5 In its grounds of appeal, the appellant argued that the required size of pore to render a mold permeable was not disclosed and that the patent failed to describe how sub-microscopic pores would enable the mold to be permeable. In its preliminary opinion the Board opined that the skilled person would, when trying to carry out the invention, 'select a pore size in the mold suited to allow the gas being used to pass through and thus not to be hindered in this regard from carrying out the invention'. To this, the appellant submitted no counter-argument in its letter of 2 February 2021 and thus the Board remains by its provisional opinion and confirms same herewith. The Board thus finds the objection regarding pore size not to hinder the skilled person from carrying out the invention.

2.6 As regards the appellant's contention that claim 1 was so broad that the skilled person would be unable to carry out the invention over its whole scope, this is also not accepted. As the opposition division correctly indicates in paragraph 15 of the impugned decision, claim 1 is directed to a 'process for producing stabilizing (sic) tampons' and notably does not claim a temperature range, a relative humidity range or a gas flow rate range to achieve the stabilization. However, four specific examples of appropriate gas conditions in order to achieve the stabilization are provided (see

paragraphs [0047] to [[0050] of the patent). The Board finds each of these examples to satisfy the requisite disclosure in the patent of 'at least one way of carrying out the invention' and together provide sufficient information for a skilled person to carry out the invention over its whole scope, noting that the use of routine experimentation, where required, does not amount to an undue burden.

2.7 In summary, therefore, the invention defined by claim 1 is disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. The requirements of Article 83 EPC are met.

### 3. *Novelty (Article 54 EPC)*

The subject-matter of claim 1 is novel.

#### 3.1 *Novelty, E2*

3.1.1 The process described in E2 (see e.g. Fig. 2) discloses a blower 46 which causes air to flow past heating rings 23, 24 and into the chamber in which the air circulates and in which the pledgets are located, the air then passing into the flue 44. The heated air thus maintains the preheat in the chamber and picks-up water evaporating from the pledgets for exhaust from the chamber. No gas is disclosed as being 'forced through a pledget', nor is there any disclosure of such a route for the blown, heated air to be forced. E2 thus fails to disclose at least the process step of 'forcing gas through the compressed tampon pledget'.

3.1.2 The appellant's argument (with reference to Figures 2 and 4) that E2 discloses a blower 46 which forces heated air through the pledgets is not accepted. There

is no such disclosure in E2, any flow of gas through the die openings only being disclosed to occur before pledgets are introduced for the pre-heating of the dies (see page 2, left column, lines 54 to 74). Once pre-heating is complete and tampon pledgets are introduced into the dies, the heating air flows upwardly out of the chamber through the flue under control of the damper 45 (see page 2, left hand column, lines 10 to 26). The air is therefore not disclosed as being forced through the tampon pledgets.

3.1.3 The appellant's further argument that the spring actuated triggers 31 of E2 were present to prevent the compressed tampon pledget from being pushed out of the mold by the air pressure does not have as a corollary that gas must be passing through the pledgets. As shown in point 3.1.2 above, once tampon pledgets have been introduced to the dies, the process air is disclosed to pass through the chamber to the flue. Indeed, an air path through the die openings into the tampons would experience significantly more resistance than the path through the flue and so, also considered technically, would not be expected to occur.

3.1.4 The subject-matter of claim 1 is thus novel over E2.

3.2 *Novelty, E1*

3.2.1 Irrespective of whether the novelty objection based on E1 was maintained before the opposition division and is thus part of the present proceedings, E1 anyway fails to disclose all features of claim 1.

3.2.2 E1 discloses the use of microwaves to heat and thus dry the pledget within a permeable mold, a vacuum being used to remove moisture from the microwave chamber (see



col. 1, lines 57 to 67). E1 fails however to disclose at least the process step of 'forcing gas through the compressed tampon pledget'.

3.2.3 Indeed, in E1 microwaves simply heat the pre-humidified pledget thereby vaporising the moisture contained in it, which then escapes from the open ends of the tube restraining the pledget. E1 thus fails to disclose forcing heated and humidified gas through the pledget.

3.2.4 The Board does not deny the appellant's contention that forcing a gas through a tampon is no different to propelling a gas through it and that this covers both propelling through application of a positive pressure or through application of a vacuum on any side thereof. However, the appellant ignores the significance of the term 'through' which, as also indicated in the Board's preliminary opinion, implies gas starting outside the pledget, passing through it and exiting the pledget once more. No such passage of gas through the pledget is unambiguously disclosed in E1.

3.2.5 The subject-matter of claim 1 is thus novel over E1.

#### 4. *Inventive step (Article 56 EPC)*

The subject-matter of claim 1 involves an inventive step.

4.1 Regarding the inventive step attack starting from E1, E1 fails to disclose at least the following feature of claim 1 (see point 3.2 above):

- forcing a gas through the compressed tampon pledget to form a stabilized tampon.

- 4.2 Since E1 stabilizes the tampon using microwaves, the objective technical problem to be solved may be seen as being 'to provide an alternative process step for stabilizing a tampon'.
- 4.3 Contrary to the argument of the appellant, neither E1 nor common general knowledge would guide the skilled person to modify the disclosed arrangement in order to allow gas to be forced through the pledget. Such a modification would require the stabilizing air to at least be deliberately guided into the tampon to be heat-set, for which there is no provision in E1, nor has any argument been presented by the appellant as to why this would be obvious to the skilled person. The subject-matter of claim 1 thus involves an inventive step based on E1 alone, even when taken in combination with common general knowledge.
- 4.4 When starting from E1 as the closest prior art and combining the technical teaching of E2 with this, contrary to the opinion of the appellant, E2 fails to guide the skilled person to the claimed solution of forcing gas through the pledget. Whilst only disclosing pointing and drying of tampons rather than stabilizing, E2 also does not disclose forcing gas through the pledget. As indicated in point 3.1.2 above, once introduced into the chamber of E2, the heating air is moved by the blower 46 upwardly out of the chamber through the flue 44 under control of the damper 45 (see page 2, left hand column, lines 10 to 26). The air is simply blown through the chamber and is not disclosed as being forced through the tampon pledgets and therefore cannot provide a hint to the skilled person of how the process of E1 should be modified in order to solve the objective technical problem and reach the

subject-matter of claim 1.

- 4.5 The subject-matter of claim 1 thus involves an inventive step over all attacks presented by the appellant when starting from E1.
- 4.6 Regarding the inventive step attack starting from E2, E2 fails to disclose at least the following feature of claim 1 (see point 3.1.1 above):
- forcing a gas through the compressed tampon pledget to form a stabilized tampon.
- 4.7 Since E2 dries tampons using the circulation of drying air around dies containing the pledgets, the objective technical problem to be solved may be seen as being 'to provide an alternative process step for stabilizing a tampon'.
- 4.8 Based on the teaching of E2 alone, or in combination with common general knowledge, the skilled person would not be guided to the claimed subject-matter when trying to solve the posed objective technical problem. The appellant has presented no reason why the gas circulating in the chamber of E2 would come to be forced through the tampon pledgets restrained in the dies. E2 discloses the heated air as being blown from the blower 46 through the chamber and to exit via the flue 44 (see page 2, left hand column, lines 10 to 26). The air is simply blown through the chamber and is not disclosed as being forced through the tampon pledgets and therefore cannot provide a hint to the skilled person, based on either E2 itself or on common general knowledge, of how the process of E2 should be modified in order to solve the objective technical problem and

reach the subject-matter of claim 1.

- 4.9 When starting from E2 and combining the technical teaching of E1 with this, contrary to the opinion of the appellant, E1 fails to guide the skilled person to the claimed solution of forcing gas through the pledget. E1 discloses tampons which are radially compressed before being subjected to microwaves in order to stabilize the tampons. There is no disclosure or suggestion of air/gas being forced through the tampon in order to achieve stabilization, which would require some form of gas inlet to the compressed tampon in order to allow gas to be forced through it. The appellant's reference to preparing the pledgets of E1 in a humidification chamber with a relative humidity of 80% also fails to address the particular modification of E2 which is necessary in order to reach the claimed subject-matter without the exercise of an inventive step.
- 4.10 The subject-matter of claim 1 thus also involves an inventive step over all attacks presented by the appellant when starting from E2.
- 4.11 In summary, therefore, the subject-matter of claim 1 involves an inventive step (Article 56 EPC).

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



D. Grundner

M. Harrison

Decision electronically authenticated