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**Datasheet for the decision  
of 30 January 2023**

**Case Number:** T 1311/19 - 3.2.07

**Application Number:** 12753139.0

**Publication Number:** 2890544

**IPC:** B29C49/00, B65D23/10, B65D1/02,  
C08G63/18

**Language of the proceedings:** EN

**Title of invention:**

BOTTLE, METHOD OF MAKING THE SAME AND USE OF FDCA AND DIOL  
MONOMERS IN SUCH BOTTLE

**Patent Proprietor:**

Société Anonyme des Eaux Minérales d'Evian  
et en Abrégé "S.A.E.M.E"

**Opponent:**

E. I. du Pont de Nemours and Company

**Headword:**

**Relevant legal provisions:**

EPC Art. 56  
EPC R. 103(4) (a)  
RPBA 2020 Art. 15(1)

**Keyword:**

Inventive step - (yes)

Reimbursement of appeal fee - at 25% after withdrawal of appeal

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**

**Boards of Appeal**

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**Case Number: T 1311/19 - 3.2.07**

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.07**  
**of 30 January 2023**

**Respondent:** Société Anonyme des Eaux Minérales d'Evian  
(Patent Proprietor) et en Abrégé "S.A.E.M.E"  
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**Appellant:** E. I. du Pont de Nemours and Company  
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**Representative:** Mewburn Ellis LLP  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
30 April 2019 concerning maintenance of the  
European Patent No. 2890544 in amended form.**

**Composition of the Board:**

**Chairman** I. Beckedorf  
**Members:** A. Beckman  
B. Paul

## **Summary of Facts and Submissions**

I. The opponent lodged an appeal within the prescribed period and in the prescribed form against the decision of the opposition division to maintain European patent No. 2 890 544 in amended form on the basis of the then auxiliary request 7.

The patent proprietor also appealed against the decision, this appeal was however subsequently withdrawn (see point IV below).

II. In preparation for oral proceedings the Board gave its preliminary assessment of the case by means of a communication pursuant to Article 15(1) RPBA 2020. The Board indicated that both appeals were likely to be dismissed.

III. Both parties filed further written submissions in response to the Board's communication, the patent proprietor with letter dated 11 January 2023 and the opponent with letter dated 23 January 2023.

IV. Oral proceedings before the Board took place by videoconference on 30 January 2023.

The patent proprietor withdrew their appeal before the decision was announced at the conclusion of the oral proceedings. The opponent limited the scope of their appeal to a revision of the reasoned findings of the opposition division in respect of inventive step of the claimed subject-matter of the amended patent maintained by the decision under appeal.

For further details of the oral proceedings, in particular with respect to the issues discussed and the requests or objections upheld by the parties, reference is made to the minutes thereof.

V. The final requests of the parties are as follows:

for the opponent in support of its appeal

that the decision under appeal be set aside and that the patent be revoked in its entirety;

for the patent proprietor, henceforth as respondent to the opponent's appeal,

that the opponent's appeal be dismissed, *i.e.* to confirm the decision of the opposition division to maintain the patent as amended according to auxiliary request 7 in opposition proceedings.

VI. The following documents are referred to in this decision:

E2: de Jong, E. et al. "Furandicarboxylic Acid (FDCA), a Versatile Building Block for a Very Interesting Class of Polymers", from Biobased Monomers, Polymers, and Materials; and

E10: Brandau, O. "Stretch blow molding".

VII. Claim 1 of auxiliary request 7 in opposition proceedings, *i.e.* of the patent as maintained according to the decision under appeal, reads as follows:

"1. A method of making a bottle (1) comprising the steps of:

- providing a preform (20) made of at least one thermoplastic polymer of at least one FuranDiCarboxylic Acid (FDCA) monomer, preferably 2,5-FuranDiCarboxylic Acid (2,5-FDCA) monomer, and at least one diol monomer, preferably monoethylene glycol (MEG) monomer,
- placing the preform (20) in a mold having a cavity comprising at least one imprinting member, the preform comprises a hollow tube (21) extending along an axis (A0) and having a closed bottom end (22) and an opened top end (23),
- blowing the preform (20) in the mold to form the bottle (1) comprising an envelop (2) defining a housing and provided with at least one imprint (10a, 10b, 15, 16), the preform (20) being blown through the opened top end (23) at a blowing pressure less than 35 bars, preferably 30 bars, more preferably 25 bars, more preferably 20 bars, more preferably 15 bars, more preferably 10 bars."

VIII. The lines of argument of the parties, which relate to inventive step of the subject-matter of claim 1 of the patent as maintained by the opposition division, are dealt with in detail in the reasons for the decision.

## **Reasons for the Decision**

### *Partial reimbursement of the appeal fee*

Due to the patent proprietor's withdrawal of their appeal before the announcement of the decision at oral proceedings, the appeal fee paid by the patent proprietor is reimbursed at 25% pursuant to Rule 103(4) (a) EPC.

*Patent as maintained according to the decision under appeal (auxiliary request 7 in opposition proceedings) - Inventive step (Article 56 EPC)*

1. In the decision under appeal, the opposition division found that the subject-matter of claim 1 of auxiliary request 7 was inventive (see decision under appeal, Reasons 6.4/6.5).

The opponent argued that the decision under appeal was incorrect as the subject-matter of claim 1 was obvious over E2 as closest prior art in combination with common general knowledge of the skilled person or in combination with the teaching of E10.

2. The opponent brought forward that the opposition division's characterisation of the objective technical problem starting from E2 as closest prior art as the provision of an improved process for producing PEF bottles was incorrect. E2 described the blow moulding of a bottle, but did not give a blowing pressure. Thus a blowing pressure had to be selected. The blowing pressure in claim 1 did not correspond to an improvement compared to E2. The problem was simply to provide a (any) successful implementation of E2.

According to the opponent, the lack of discussion about PEF in E10 was of no consequence. Starting from E2, the skilled person had to select a blowing pressure. In view of the teaching of E10, the skilled person would generally reduce air requirements as much as possible and inevitably try to minimise the blowing pressure. This was not a teaching that was specific to any particular material, but it was relevant to blow moulding in general. The skilled person understood the

teaching would apply equally to the PEF of E2 as to conventional PET. Therefore, the combination of E2 and E10 would inevitably lead the skilled person to try to minimise the blowing pressure as much as possible. The skilled person would arrive at a pressure of less than 35 bars by routine trial and error or by the application of normal design procedures.

3. The Board is not convinced by the argumentation of the opponent, irrespective of the objection to the formulation of the objective technical problem, since E10 relates to PET of which the teaching is not transposable to PEF, as put forward by the patent proprietor. In any case, E10 does not teach blowing pressures of less than 35 bars (see patent proprietor's reply, point 3.4.4).
  
4. The opponent further argued that the skilled person for the disputed patent was an expert in the field of plastic bottles having general knowledge about blow moulding processes. The skilled person tasked with developing such bottles was aware of the importance of optimising bottle production and knew how to optimise bottle production. Regardless of the resin they were presented with, it was routine for them to change processing conditions and assess the impact on bottle performance. The blowing pressure was one of the standard parameters that a skilled person would routinely optimise in order to minimise energy and material consumption, and thereby minimise cost and environmental impact.

E2 disclosed making a preform from PEF and blow moulding into a bottle using standard machinery, as well as comparative bottles made from PET. It taught the skilled person the importance of minimising costs



associated with PEF, and specifically incentivised improving processes to maximise the environmental benefits associated with switching from PET to PEF. In implementing this internal teaching of E2, the skilled person would seek to optimise bottle production parameters. This was in any case a routine part of their job even in the absence of motivation in E2.

The skilled person looking to make the bottle of E2 had to select a blowing pressure. In so doing, they would look to optimise the blowing pressure in order to reduce energy and material consumption and thereby limit costs and environmental impact, since this was a general goal in the field, a routine part of their work, and was explicitly motivated by E2's internal teaching. This would inevitably lead them to seek to minimise blowing pressure, and thereby arrive at claim 1 as maintained.

If the skilled person required any guidance in selecting a blowing pressure, they would turn to E10.

The lack of reference to PEF in E10 was not surprising. E10 was published in 2012 and reflected common general knowledge and practice in the time leading up to that publication date. E10 did not exclude or distance itself from PEF, it was simply written before PEF bottles were reported. The skilled person knew this and addressed E10 with that in mind.

In the absence of the availability of any specific guidance about PEF, the skilled reader would look at the general teaching in E10. The skilled reader would recognise that the focus on PET simply reflected the dominant position of PET within the field itself. PET was used as a lens through which to explain the broader

concepts of blow moulding. They would note that E2 was similar in this regard. It viewed the performance of PEF through the lens of PET.

Thus, it would be obvious to solve the above problem from E2 through routine minimisation of blowing pressure, and thereby arrive at a result within claim 1 as maintained.

5. The Board is not convinced by the opponent's argumentation.

It is undisputed that the method of making a bottle according to claim 1 differs from the method disclosed in E2 in the step of blowing the preform at a blowing pressure less than 35 bars.

It is further common ground that lowering the blowing pressure reduces energy and material consumption, and thereby limits costs and environmental impact.

When considering whether or not claimed subject-matter constitutes an obvious solution to an underlying technical problem, according to established case law, the question to be answered is whether or not the skilled person, in the expectation of solving the problem, would have modified the teaching in the closest prior art document in the light of other teachings in the prior art so as to arrive at the claimed invention. Since this question involves determining whether or not the skilled person would, and not could, have made a particular modification, it is necessary for answering the question to identify conclusive reasons on the basis of tangible evidence that would have prompted the skilled person to act in

one way or the other (see Case law of the Boards of Appeal [CLB], 10<sup>th</sup> edition 2022, I.D.5).

However, the Board disagrees with the opponent's view that it was motivated by E2's internal teaching that the skilled person, looking to make the bottle of E2, would seek to optimise the blowing pressure in order to reduce energy and material consumption, as E2 is completely silent about a blowing pressure. This argumentation of the opponent is based on a mere assumption and is not proven by any tangible evidence.

The blowing pressure of less than 35 bars cannot be the result of merely routine optimisation of blowing pressure for the process according to E2, as there is nothing in E2 to suggest this blowing pressure. Thus, the skilled person has no motivation to combine common general knowledge or the teaching of E10 with the method of E2 and would, thus, not arrive at the claimed method in an obvious way.

Furthermore, the Board cannot accept the opponent's argumentation that the lack of discussion about PEF in E10 was of no consequence, and thus that the skilled person would combine in an obvious way the PEF bottle of E2 with the teaching of E10 for PET. This argumentation is again based on an unproven allegation.

It is equally merely an unproven allegation that the skilled person would carry their knowledge about processing of PET forward into any problem they tackled, including having to select a suitable blowing pressure for alternative resins, such as PEF. There is no proof that any knowledge about processing of PET is replicable to PEF.

Thus, the opponent did not not provide any verifiable evidence that it is common general knowledge to select a blowing pressure less than 35 bars in making PEF bottles.

As the method for making PEF bottles of E2 is completely silent about blowing pressures, as it is an unproven allegation that the skilled person would select the blowing pressure in E2 by common general knowledge or implement it by routine optimisation, and as the only evidence for selecting blowing pressures is E10, which only gives information about the stretch blow moulding process of PET and not about using PEF in making bottles, it is not obvious for the skilled person to blow mould the PEF bottles known from E2 at a blowing pressure less than 35 bars.

6. Hence, the opponent had not convincingly shown that the decision under appeal was incorrect in finding that the subject-matter of claim 1 of the then auxiliary request 7 was inventive.

## Order

### For these reasons it is decided that:

1. The appeal fee paid by the patent proprietor is reimbursed at 25%.
2. The appeal of the opponent is dismissed.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated