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**Datasheet for the decision  
of 28 April 2023**

**Case Number:** T 1314/21 - 3.2.07

**Application Number:** 15724700.8

**Publication Number:** 3148897

**IPC:** B65D65/40, B65D85/72, B32B5/18,  
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B32B27/10, B32B27/32

**Language of the proceedings:** EN

**Title of invention:**  
PACKAGING MATERIAL AND PACKAGING CONTAINER

**Patent Proprietor:**  
Tetra Laval Holdings & Finance SA

**Opponent:**  
Stora Enso Oyj

**Headword:**

**Relevant legal provisions:**  
EPC Art. 56, 100(a)  
RPBA 2020 Art. 12(6)

**Keyword:**

Inventive step - (yes) - non-obvious combination of known features

Late-filed evidence - admitted in first-instance proceedings (no) - circumstances of appeal case justify admittance (no)

**Decisions cited:**

**Catchword:**



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Case Number: T 1314/21 - 3.2.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.07**  
**of 28 April 2023**

**Appellant:** Stora Enso Oyj  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 15 June 2021  
rejecting the opposition filed against European  
patent No. 3148897 pursuant to Article 101(2)  
EPC.**

**Composition of the Board:**

**Chairman** I. Beckedorf  
**Members:** S. Watson  
A. Beckman

## Summary of Facts and Submissions

- I. An appeal was filed by the opponent in the prescribed form and within the prescribed time limit against the decision of the opposition division rejecting the opposition against European patent No. 3 148 897.
- II. The opposition division found that none of the objections raised by the opponent prejudiced the maintenance of the patent as granted.
- III. In preparation for oral proceedings, the Board gave its preliminary opinion in a communication pursuant to Article 15(1) RPBA 2020, on which neither party commented in substance.
- IV. Oral proceedings before the Board took place on 28 April 2023. At the conclusion of the proceedings the decision was announced. Further details of the oral proceedings can be found in the minutes.
- V. The following documents are mentioned in this decision:
  - D1: WO 2013/160553 A1;
  - D4: WO 2009/112255 A1;
  - D9: Svolainen, A., (1998) 'Paper and paperboard converting' *Papermaking science and technology*, Book 12, pp. 169-170;
  - D10: WO 02/48001 A1;
  - D11: EP 1 493 678 B1;
  - D12: TBA packaging components.gif  
(edited 18 December 2011);
  - D13: Wikipedia entry 'Liquid packaging board'  
2013;
  - D14: WO 2011/003566 A1;

D15: WO 2011/003567 A2.

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

The opponent (appellant) requests

- that the decision under appeal be set aside; and
- that the patent be revoked.

The patent proprietor (respondent) requests

- that the appeal be dismissed, or
- alternatively, when setting aside the decision under appeal, that the patent be maintained in amended form according to one of the sets of claims of auxiliary requests 1 to 3 filed during the opposition proceedings.

VII. The arguments of the parties relevant for the decision are dealt with in detail in the reasons for the decision.

VIII. Independent claim 1 of the patent as granted reads as follows:

"A packaging material for a packaging container for liquid or semi-liquid food, comprising a decor layer (11) which on one side of the layer has a bulk layer (12) having a density of less than 700 kg/m<sup>3</sup> and foamed cellulose of at least 25% thickness of the bulk layer, which on the side opposite the decor layer (11) has a barrier layer (14), which on the side opposite the bulk layer (12) has a heat-sealable layer (16)."

Independent claim 16 of the patent as granted reads as follows:

"A method of providing a packaging material for a packaging container for liquid or semi-liquid food, wherein the method comprises providing a bulk layer having a density less than  $700 \text{ kg/m}^3$  and comprising foamed cellulose; providing a polyolefin decor layer on one side of the bulk layer; providing a barrier layer on the side opposite the decor layer; providing a heat-sealable layer on the barrier layer; and wherein the packaging material is obtained by extrusion lamination and/or heat-pressure lamination."

IX. In light of the decision taken, it is unnecessary to reproduce the independent claims according to the auxiliary requests here.

### **Reasons for the Decision**

1. Article 100(a) EPC with Article 56 EPC - claim 1 as granted

In the decision under appeal, the opposition division found that the subject-matter of claim 1 as granted was not obvious over a combination of the TETRA BRIK ASEPTIC® liquid food packaging laminate together with the teaching of document D1 (see decision under appeal, points 12.6 to 12.12).

1.1 It appears to be common ground between the parties that the TETRA BRIK ASEPTIC<sup>®</sup> liquid food packaging laminate, as described in document D4, is a suitable starting point for consideration of inventive step, and that the distinguishing features of claim 1 over this prior art are that the bulk layer has "a density of less than 700 kg/m<sup>3</sup> and foamed cellulose of at least 25% thickness of the bulk layer".

It also appears to be uncontested that document D1 shows these distinguishing features.

1.2 The opposition division's formulation of the objective technical problem was however contested by the appellant.

In the decision under appeal, the opposition division considered that the objective technical problem was "to provide a packaging material using a reduced amount of cellulose fiber and having good mechanical properties and maintaining bulk thickness after heat lamination" (see decision under appeal, point 12.9).

According to the appellant the effect of maintaining the thickness of the foamed bulk layer after heat lamination is not achieved across the whole range of the claim so that the objective technical problem to be solved must be reformulated less ambitiously as "how to provide a packaging material using a reduced amount of cellulose fiber and having good mechanical properties" (statement of grounds of appeal, page 5, final paragraph to page 6, second paragraph).

The appellant argued that paragraphs [0036] and [0058] to [0060] of the contested patent clearly showed that the effect of maintaining the thickness was only

achieved with foamed cellulose having a density of 300 kg/m<sup>3</sup> or higher (see statement of grounds of appeal, page 5, fourth paragraph; submissions of 3 May 2022, page 2, penultimate paragraph to page 4, first paragraph).

- 1.3 It is established case law that an objective definition of the problem should normally start from the problem described in the contested patent and should only be reformulated if the technical problem set out in the patent has not been credibly solved (see case law of the Boards of Appeal (CLB), 10th edition, 2022, I.D. 4.2.2).

In the present case the Board agrees with the findings of the opposition division (decision under appeal, point 12.8) and the arguments of the respondent (see reply to the grounds of appeal, page 3, second paragraph) that the contested patent shows that the technical effect applies across the scope of the claim. As shown in figure 6 and paragraph [0058] of the contested patent, some resistance to thickness reduction was achieved with foamed cellulose having a density of 100 kg/m<sup>3</sup> and 200 kg/m<sup>3</sup>, albeit to a lesser extent than for densities of 300 and 400 kg/m<sup>3</sup>.

- 1.4 The appellant also contested the reasoning of the opposition division that the skilled person would not combine the teaching of document D1 with the known prior art TETRA BRIK ASEPTIC® as document D1 gave no practical teaching to apply foamed cellulose within a lamination process (see decision under appeal, point 12.11).

The appellant argued in its statement of grounds of appeal (page 8, second paragraph) and its submissions



of 3 May 2022 (page 5, third complete paragraph) that, contrary to the opposition division's findings, there was a practical teaching in document D1 to use the foamed cellulose in a lamination process. D1 indicated, on page 5, lines 18 to 24, that the high bulk, high strength structure made according to the invention could be used in lamination structures and as a fibrous base for extrusion coating with plastics.

According to the appellant, as document D1 also mentioned the applicability of the claimed method to liquid packaging boards on page 5, lines 5 to 11 and page 6, lines 5 to 11, the skilled person would combine the teaching of document D1 with the known TETRA BRIK ASEPTIC® packaging material. D1 provided motivation to the skilled person as on page 3, lines 9 to 11, it set out that the object of the invention was "to find a method of making a foam formed fibrous web, lending a substantially increased strength to paper and board products while preserving the low density" (see statement of grounds of appeal, page 6, third paragraph and page 7, third complete paragraph).

1.5 These arguments are not convincing.

It is well-established case law, that to determine whether a claimed invention is obvious, the question to be answered is whether or not the skilled person, in the expectation of solving the problem, would have modified, without the use of hindsight, the teaching in the closest prior art to arrive at the claimed invention (see CLB, *supra*, I.D.5, first and third paragraphs).

Document D1 does not disclose detailed technical information relating to the use of foamed cellulose in

heat lamination processes, nor does it mention the problem of reducing the amount of cellulose fiber in a packaging material while having good mechanical properties and maintaining bulk thickness after heat lamination.

As the respondent argued (reply to the statement of grounds of appeal, page 6, first paragraph), no detail or examples using the method of D1 in plastic-containing laminates or specifically in liquid packaging board is provided. D1 gives a wide variety of possible, theoretical uses without demonstrating whether, or under which conditions, the foamed cellulose could successfully be used in liquid packaging boards.

Further, as also brought forward by the respondent, document D1 does not clearly discuss the advantages of foamed cellulose. High bulk is referred to as advantageous but the significance of this in terms of a reduction of cellulose is not clearly set out. The references in document D1 to high strength refer to tensile strength and no mention is made of compressive strength (see reply to statement of grounds of appeal, page 6, first and third paragraphs).

Therefore the skilled person, without the use of hindsight, would not consider modifying the TETRA BRIK ASEPTIC® packaging material by including foamed cellulose as described in document D1, in order to solve the problem posed.

2. Article 100(a) EPC with Article 56 EPC - claim 16 as granted

At the oral proceedings before the Board, the appellant maintained two objections against independent claim 16, arguing that the subject-matter of claim 16 was obvious over a combination of either document D4 together with the teaching of document D1; or the skilled person's common general knowledge, as represented by documents D9, D12 and/or D13, together with document D1.

- 2.1 For the first objection, the appellant confirmed during the oral proceedings before the Board, that it relied on the same reasoning as given for claim 1 (see points 1.2 and 1.4 above).

- 2.1.1 Claim 16 contains the feature that the bulk layer has a density of less than  $700 \text{ kg/m}^3$  and comprises foamed cellulose. Therefore the subject-matter of claim 16 is not obvious over the combination of documents D4 (disclosing the known TETRA BRIK ASEPTIC<sup>®</sup> packaging material) and D1 for the same reasons as given above in points 1.3 and 1.5.

- 2.1.2 As this objection does not prejudice maintenance of the patent as granted, it is not necessary to consider the respondent's request not to admit this objection under Article 12(2) to (4) RPBA 2020 (reply to the statement of grounds of appeal, page 7, fourth paragraph).

- 2.2 Regarding the second objection, the appellant requested that documents D9 to D15 be admitted into the appeal proceedings as proof of the common general knowledge of the skilled person (see statement of grounds of appeal, page 2, third paragraph to page 3, first paragraph).

Documents D9 to D15 were not admitted into the opposition proceedings (see point 11 of the decision under appeal) and the respondent requested that they not be admitted into the appeal proceedings (reply to the statement of grounds of appeal, page 2, first to third paragraphs).

- 2.2.1 According to Article 12(6), first sentence, RPBA 2020 a Board shall not admit evidence which was not admitted into the proceedings leading to the decision under appeal, unless the decision not to admit them suffered from an error in the use of discretion or the circumstances of the appeal case justify their admittance.
- 2.2.2 In the decision under appeal, the opposition division reasoned that documents D9 to D15 were not prima facie relevant as the information they contained either already formed part of the proceedings or was submitted as evidence of common general knowledge where proof was deemed not necessary (see decision under appeal, points 11.2, 11.4, 11.6).
- 2.2.3 The appellant did not provide any arguments relating to an error in the use of discretion by the opposition division and did not specify any circumstances of the appeal case which would justify the admittance of documents D9 to D15.  
The Board also cannot see any circumstances in the present case which would justify admitting the documents into the appeal proceedings, in particular as the claims under consideration in appeal remain the claims as granted. The appellant therefore had the opposition period to submit any evidence necessary to support its objections.

2.2.4 Therefore, documents D9 to D15, and associated objections, were not admitted into the appeal proceedings.

3. Conclusion

As none of the objections admissibly raised by the appellant prejudice the maintenance of the patent as granted, the appeal should be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated