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Datasheet for the decision of 11 March 2025

Case Number: T 1404/23 - 3.2.07

Application Number: 14891589.5

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IPC: B65D85/804

Language of the proceedings: EN

Title of invention:
CAPSULE AND DEVICE FOR PREPARING BEVERAGES AND METHOD FOR MANUFACTURING A CAPSULE

Patent Proprietor:
Advanced Technology Assets B.V.

Opponent:
Wilson Gunn

Headword:

Relevant legal provisions:
EPC Art. 100(a), 100(b), 54, 56
RPBA 2020 Art. 13(2), 15(1)

Keyword:
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)
Amendment after notification of Art. 15(1) RPBA communication - cogent reasons (no)

Decisions cited:

Catchword:

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Beschwerdekammern

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Case Number: T 1404/23 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 11 March 2025

Appellant: (Opponent)	Wilson Gunn Charles House 148/9 Great Charles Street Birmingham B3 3HT (GB)
Respondent: (Patent Proprietor)	Advanced Technology Assets B.V. Nieuwe Haven 27 A 1411 SG Naarden (NL)
Representative:	Patentwerk B.V. P.O. Box 1514 5200 BN 's-Hertogenbosch (NL)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 6 June 2023 rejecting the opposition filed against European patent No. 3145838 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairwoman	A. Beckman
Members:	V. Bevilacqua
	S. Ruhwinkel

Summary of Facts and Submissions

I. An appeal was filed by the opponent (appellant) against the decision of the opposition division to reject their opposition against European patent No. 3 145 838.

II. The opposition division found that none of the raised grounds for opposition (Article 100(a) EPC in combination with Articles 54 and 56 EPC, Article 100(b) EPC) prejudiced the maintenance of the patent as granted.

III. The following documents, mentioned in the appealed decision, are referred to in the present decision:

D3: US 5 656 311 A;
D4: R. Chandra et al., Biodegradable Polymers, Prog. Polym. Sci., Vol. 23, 1273–1335, 1998;
D5: I. Vroman et al., Biodegradable Polymers, Materials 2009, 2, 307-344;
D10: L. Vanharova et al., PVP Based Materials: Biodegradation in Different Environments, ECOL CHEM ENG S. 2017, 24(2):299-309.

IV. In preparation for the oral proceedings, the board gave its preliminary opinion in a communication pursuant to Article 15(1) RPBA according to which the appeal was likely to be dismissed.

V. The patent proprietor (respondent) reacted in substance to the above mentioned communication with letter of 10 January 2025 and the appellant with letter of 21 January 2025.

VI. Oral proceedings before the board took place on 11 March 2025.

VII. The final requests of the parties are as follows.

The appellant (opponent) requested
- that the decision under appeal be set aside and
- that the patent be revoked,

alternatively, if the decision was set aside,
- that the case be remitted to the opposition division for further prosecution of one of the auxiliary requests.

The respondent (patent proprietor) requested
- that the appeal be dismissed and the patent be maintained as granted (main request),

alternatively, if the decision was set aside,
- that the case be remitted to the opposition division for further prosecution of one of the auxiliary requests, filed during opposition proceedings and re-filed with the reply to the statement setting out the grounds of appeal as "first Art 100(b) auxiliary request" and auxiliary requests 1 to 7, or

alternatively,
- that the patent be maintained in amended form according to one of said auxiliary requests.

VIII. At the conclusion of the proceedings the present decision was announced.

Further details of the oral proceedings can be found in the minutes thereof.

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

X. Claim 1 of the **main request** reads as follows:

"Capsule (1, 11, 20) for preparing beverages, comprising:
- an essentially closed housing (12, 27) which is at least partially filled with a substance to be extracted and/or dissolved, such as ground coffee, for preparing a beverage, wherein the housing (12, 27) is essentially closed, wherein the housing (12, 27) is defined at least by a peripheral wall (12b, 29), an end side (12a, 28) connected to the peripheral wall (12b, 29), and a laterally protruding engaging edge (12c, 30) connected to the peripheral wall (12b, 29) at a distance from the end side (12a, 28) in order to allow the capsule (1, 11, 20) to be clamped into a capsule holder of a device for preparing beverages; and
- at least one essentially closed closing element (2, 13, 21, 40) connected to the laterally protruding engaging edge (12c, 30) for sealing the substance into the capsule (1, 11, 20) in order to preserve it, characterized in that, at least a part of the closing element (2, 13, 21, 40) is composed of a laminated, essentially fully compostable film (2, 13, 21, 40) comprising a plurality of polymer layers (3, 5, 6, 13a, 13c, 13d, 13f, 21a-21f, 40a, 40b, 40c), which film (2, 13, 21, 40) comprises at least one polymer oxygen barrier layer (5, 13d, 21d, 40b), which barrier layer (5, 13d, 21d, 40b) is essentially impermeable to oxygen, and which film (2, 13, 21, 40) comprises at least one polymer carrier layer (6, 13a, 13c, 13f, 21a, 21c, 21f) connected to the oxygen barrier layer (5, 13d, 21d, 40c), wherein at least one carrier layer (6,

13a, 13c, 13f, 21a, 21c, 21f, 40a, 40c) is provided with at least one weakened area (7, 23)."

Claim 11 of the **main request** reads as follows:

"Capsule (1, 11, 20) according to one of the previous claims, wherein the oxygen barrier layer (5, 13d, 21d, 40b) s at least partially composed of a material selected from the group composed of: polyvinyl alcohol (PVOH), polyvinylpyrrolidone (PVP), and polyvinyl acetate (PVAc)."

Claim 12 of the **main request** reads as follows:

"Capsule (1, 11, 20) according to one of the previous claims, wherein the oxygen barrier layer (5, 13d, 21d, 40b) is at least partially composed of an organic fraction (R), and an inorganic fraction, wherein the inorganic fraction preferably is composed of silicon alkoxide ($Si(OR)_4$)".

Claim 21 of the **main request** reads as follows:

"Closing element for use in a capsule (1, 11, 20) according to one of the previous claims, wherein at least a part of the closing element (2, 13, 21, 40) is composed of a laminated film (2, 13, 21, 40), which film (2, 13, 21, 40) comprises at least one oxygen barrier layer (5, 13d, 21d, 40b), which barrier layer (5, 13d, 21d, 40b) is essentially impermeable to oxygen, and which film (2, 13, 21, 40) comprises at least one carrier layer (6, 13a, 13c, 13f, 21a, 21c, 21f) connected to the oxygen barrier layer (5, 13d, 21d, 40b), wherein at least one carrier layer (6, 13a, 13c, 13f, 21a, 21c, 21f) is provided with at least one weakened area (7, 23)."

Claim 22 of the **main request** reads as follows:

"Method for manufacturing a capsule (1, 11, 20) for preparing beverages, particularly a capsule (1, 11, 20) according to one of Claims 1-20, comprising the steps:
A) manufacturing of a housing (12, 27) of the capsule (1, 11, 20) from at least one preferably compostable material, wherein the housing (12,27) is essentially closed, and wherein the housing (12, 27) is defined at least by a peripheral wall (12b, 29), an end side (12a, 28) connected to the peripheral wall (12b, 29), and a laterally protruding engaging edge (12c, 30) connected to the peripheral wall (12b, 29) at a distance from the end side (12a, 28) in order to allow the capsule (1, 11, 20) to be clamped into a capsule holder of a device for preparing beverages;
B) manufacturing of a laminated film (2, 13, 21, 40), which film (2, 13, 21, 40) comprises at least one oxygen barrier layer (5, 13d, 21d, 40b), which oxygen barrier layer (5, 13d, 21d, 40b) is essentially impermeable to oxygen, and which film (2, 13, 21, 40) comprises at least one carrier layer (6, 13a, 13c, 13f, 21a, 21c, 21f) connected to the oxygen barrier layer (5, 13d, 21d, 40b), wherein at least one carrier layer (6, 13a, 13c, 13f, 21a, 21c, 21f) is provided with at least one weakened area (7, 23), and
C) at least partial filling of the housing (12, 27) with a substance to be extracted and/or dissolved, such as ground coffee, for preparing a beverage; and
D) connecting of the film (2, 13, 21, 40) to the housing (12, 27) in such a way that the substance is enclosed in the capsule (1, 11, 20) in an essentially airtight manner."

XI. The text of the auxiliary requests is not relevant for the present decision.

Reasons for the Decision

1. Main request - Sufficiency of disclosure (Article 100(b) EPC)

In the communication under Article 15(1) RPBA under point 1, the board referred to the following factual and legal position on sufficiency of disclosure, which was neither questioned nor commented on by the parties. The board sees no reason to deviate from its opinion in this respect and confirms it as follows.

1.1 The opposition division, rejecting the appellant's objections against granted claims 11, 12, 21 and 22, found that the ground for opposition under Article 100(b) EPC did not prejudice the maintenance of the patent as granted.

For claim 11, they found that it was clear for the skilled person how to select compostable materials from the list of materials mentioned in the claim for realizing the oxygen barrier.

For claim 12, they found that the skilled person knew how to provide a compostable barrier layer composed of an organic and inorganic fraction.

For claims 21 and 22, they found that there is sufficient disclosure of a capsule with a fully compostable film (claim 1).

1.2 The appellant contests the above findings arguing as follows.

1.2.1 For claim 11, the appellant puts forward that D10 shows that PVP is not biodegradable/compostable. As a consequence of that, claim 11 contradicts claim 1 which requires a fully compostable film.

The appellant then also argues that the disclosure at column 5, lines 6-9, and column 16, lines 36-39, of the patent in suit, where PVP is only mentioned as the oxygen barrier layer, is not enough to enable the skilled person to make an "essentially fully compostable" film for a cover element comprising this non compostable polymer.

1.2.2 When attacking claim 12, the appellant argues that a skilled person would not know how to combine the organic and inorganic fractions to obtain a compostable barrier layer.

The appellant argues that paragraph [0039] of the patent in suit does not disclose how the feature of claim 12 that the inorganic fraction of the oxygen barrier layer is composed of silicon alkoxide ($Si(OR)_4$) should be carried out.

The skilled person had no idea, according to the appellant, what relative amounts of the organic and inorganic fractions to use, or what (if any) chemical reaction is required to combine them; and if a chemical reaction is required, what reaction conditions (time, temperature, pressure, solvent, catalyst, etc.) are needed.

1.2.3 Against claim 21 the appellant argues that there was no enabling disclosure of a capsule with both a fully compostable film (claim 1) and a non-compostable film (claim 22).

1.2.4 According to the appellant claim 22 also lacked sufficiency of disclosure because it did not foresee a step of manufacturing a compostable film, while there was no enabling disclosure of manufacturing a capsule having an essentially fully compostable film, in which the manufacturing process involved making a film which was not fully compostable.

1.3 The board is not convinced by the above arguments.

1.3.1 Contrary to what has been argued by the appellant with respect to claim 11, claim 1 does not require the oxygen barrier layer to be fully compostable but to be "essentially fully compostable", meaning that non-compostable materials can also be comprised.

D10 does also not definitively prove that PVP is not "essentially fully compostable" (see appealed decision, page 3, first paragraph).

The authors of D10 do not conclude that PVP is not compostable, but rather that further research in this area might show more complex results of biodegradation of materials based on PVP.

As correctly noted by the respondent, the conclusions of this research paper are that a slower rate of decay was noticed for this material, when compared to other studies done on PVP/PLA systems.

It is established jurisprudence that an objection of

lack of sufficiency of disclosure presupposes that there are serious doubts substantiated by verifiable facts. As a consequence, the burden of proof is upon the appellant to establish that a skilled reader of the patent, using their common general knowledge, would be unable to carry out the invention (see the Case Law of the Boards of Appeal, 10th Edition 2022, CLB in the following, II.C.9., first and second paragraph, with further references).

Since the burden of proof lies with the appellant, and the evidence submitted by the appellant (D10) is not convincing, the board has no reason not to consider the decision under appeal as being correct.

1.3.2 Claim 12 requires that the inorganic fraction of the oxygen barrier layer of the laminated essentially fully compostable film is preferably composed of silicon alkoxide ($Si(OR)_4$).

As noted by the opposition division, paragraph [0039] of the description of the patent in suit describes an embodiment comprising this feature.

The appellant's allegation that essential information is missing on how the organic and inorganic fractions are combined together in this oxygen barrier layer to provide a compostable barrier, and that for this reason the skilled person cannot carry out the invention does not demonstrate the incorrectness of the appealed decision.

This is again because an objection of lack of sufficiency of disclosure presupposes that there are serious doubts substantiated by verifiable facts.

The burden of proof is upon the appellant to establish on the balance of probabilities that a person skilled in the art, using their common general knowledge, would be unable to carry out the invention.

As the appellant failed to submit any evidence to show that claim 12 is not sufficiently disclosed, the board has no reason not to consider the reasoned finding of the opposition division as being correct.

1.3.3 The board has also no reason not to consider the reasoned finding of the opposition division on sufficiency of disclosure of claim 21 as being correct.

This is because as claim 21 is dependent on claim 1, it also comprises the feature that at least a part of the closing element is composed of a laminated, essentially fully compostable film comprising a plurality of polymer layers.

The appellant's allegation that this claim recites a closing element in which the film of the closing element is not defined to be compostable is therefore not correct.

1.3.4 Also the objection against claim 22 is not convincing. This is because independent method claim 22, being directed towards a method for manufacturing a capsule for preparing beverages, **particularly** a capsule according to one of claims 1-20, does not foresee the mandatory presence of a closing element composed of a laminated, essentially fully compostable film.

On the contrary claim 22 foresees the manufacturing of a housing of the capsule from at least one preferably compostable material.

As a consequence of the above, and contrary to the appellant's argumentation, a disclosure of how to manufacture such a film is not necessary to carry out the method of claim 22.

1.4 Hence, the ground for opposition under Article 100(b) EPC does not prejudice the maintenance of the patent as granted.

2. Novelty of claim 1 of the main request (Article 100(a) and 54 EPC)

2.1 The opposition division acknowledged novelty of the subject-matter of claim 1 of the main request over the embodiment of figure 3 of D3 identifying as the only distinguishing feature that the closing element is composed of a fully compostable film.

2.2 The appellant contests the above finding arguing that the expression "essentially fully compostable" lacks a clear definition of the intended limitations, in particular in relation to
- the chemical and physical conditions, and
- the time frame
under which composting occurs.

This expression has therefore to be interpreted broadly, with the consequence that the embodiment of figure 3 of D3 discloses all the features of claim 1, including the distinguishing "essentially fully compostable" feature.

This is because the membrane described in D3, column 4, lines 28 to 32, comprises a polyester film filled with silica.

The appellant contends that such polyesters are compostable under suitable conditions and time frames, whereby the silica filler would form a natural part of compost following the breakdown of the polyester.

The appellant adds that compostability of polyester films is also confirmed by the patent in suit (the appellant refers e.g. to page 9, line 11 and page 10, line 11, of the application as originally filed).

2.3 The appellant then also put forward that, in accordance with the findings of the appealed decision (and contrary to what has been argued by the respondent), the passage in column 4, line 13 to 32, of D3, describing the embodiment of figure 3, should be construed as disclosing that the thin silica-filled polyester film used for the closing membrane mentioned at line 28 and corresponding to the closing element of claim 1 of the main request is a "polymer oxygen barrier layer".

This is because the sentence in said passage starting with "Alternatively" (column 4, line 22) would be understood by a skilled reader as describing an alternative to the thin barrier film providing protection against oxidation mentioned in the previous sentence (the "preferred version", see column4, line 13).

Thus, the membrane consisting of a polyester filled with silica (column 4, line 28- 29) like the alternative thin barrier film (column 4, lines 21-22) would be understood as providing protection against oxidation as the thin barrier film in the preferred version.

2.4 The board is not convinced by the above arguments, for the following reasons.

2.4.1 The board fully concurs with the reasoned findings of the opposition division that the embodiment of figure 3 of D3, described in column 4, does not comprise a closing element composed of a laminated, essentially fully compostable film.

While it is correct that the closing element of D3 contains a layer of polyester filled with silica, and also that the expression "essentially fully compostable" is broad, it is not correct to conclude that polyesters in general and polyester filled with silica are to be considered as being compostable.

Even if "essentially fully compostable" is broad, still it is a restriction on the closing element, which requires the claimed laminated film of the closing element to have properties which are not disclosed in D3.

The fact that examples of compostable polyesters are mentioned in the patent in suit does not demonstrate that any polyester film is compostable.

Hence, the generic disclosure of D3 ("polyester" or "polyester filled with silica") does not destroy the novelty of the claimed laminated, essentially fully compostable film comprising a plurality of polymer layers.

As a consequence of the above, the subject-matter of claim 1 of the main request is novel over the disclosure of document D3.

2.5 The board also concurs with the respondent that the embodiment of figure 3 of D3 does not contain a closing element comprising a polymer oxygen barrier layer.

This is because the "thin barrier film" identified by the appellant and by the opposition division as the oxygen barrier (see appealed decision, II.14.1 and point 1.6 of the table at page 7 of the statement setting out the grounds of appeal) belongs to the capsule body (see column 4, lines 13-15, of D3) and not to the closing element.

The board is also not persuaded by the appellant's interpretation regarding the "thin silica filled polyester film" of the membrane mentioned in column 4, lines 22-28, of D3.

The board notes that the sentence beginning with "Alternatively" (column 4, line 22) does not univocally support the interpretation proposed by the appellant.

Upon careful examination of the relevant passage in column 4, lines 13-32, of D3, the board observes that the term "Alternatively" may reasonably be construed as introducing an alternative to the entirety of the "preferred version" described in the preceding sentences, rather than referring directly to the thin barrier film providing protection against oxidation.

The text of D3 states: "In a preferred version which provided the powder-form composition for a beverage with complete protection against oxidation, the body is formed from a thin barrier film..." (column 4, lines 13-16).

The subsequent "Alternatively" sentence could therefore be understood as presenting an embodiment which does not necessarily incorporate the same oxygen protection characteristics.

Consequently, it is not clearly and univocally derivable from column 4 of D3 that the thin silica-filled polyester film of the membrane mentioned at line 28 constitutes a polymer oxygen barrier layer as required by the claim.

From the mere fact that silica-filled polyester is mentioned both in relation to the "thin barrier film" (as an alternative body material) and for the membrane it is not directly an unambiguously derivable that the membrane possesses oxygen barrier properties.

As a consequence of the above, the subject-matter of claim 1 of the main request is novel over the disclosure of document D3, also because there is no disclosure, in the embodiment of figure 3 thereof, of a polymer oxygen barrier layer.

3. Novelty objection against claim 1 based on D3, figure 8

3.1 During the oral proceedings, the appellant argued for the first time that the subject-matter of claim 1 of the main request lacked novelty over the embodiment of figure 8 of document D3.

The appellant contends that the board should consider the novelty objection based on figure 8 of document D3 as it did not constitute an amendment to the appellant's case within the meaning of Article 13(2) RPBA.

The appellant submits that the objection against claim 1 based on figure 8 was implicitly contained in section 3.3.1 of the statement setting out the of grounds of appeal, where a specific novelty objection against dependent claim 2 based on figure 8 of document D3 was raised.

Since dependent claim 2 incorporates all features of independent claim 1 by reference, any valid novelty objection against claim 2 necessarily encompasses a valid novelty objection against claim 1.

The appellant also argues that it would not be procedurally correct to interpret the statement of grounds as containing a novelty objection exclusively against claim 2 without the logical implication that such objection extends to claim 1.

The technical assessment presented in section 3.3.1 clearly identifies all elements of figure 8 that anticipate the claimed subject-matter, and these elements are directly applicable to the assessment of claim 1.

3.2 The board is not convinced by the above argumentation and decided that the objection based on figure 8 of document D3 does indeed constitute an amendment to the appellant's appeal case for the following reasons.

The statement setting out the grounds of appeal contains a clearly structured novelty attack against claim 1 in section 3.1, which is exclusively based on the embodiment of figure 3 of document D3. This section presents a comprehensive feature-by-feature analysis comparing claim 1 with the disclosure of figure 3, without any reference to figure 8.

The statement of grounds follows a structured approach where separate objections are presented against different claims with distinct headings and analyses.

If the appellant had intended to raise a novelty objection against claim 1 based on Figure 8, clarity and procedural fairness would have required an explicit articulation of this objection.

The fact that section 3.3.1 of the statement of grounds of appeal addresses a novelty attack against dependent claim 2 based on figure 8 cannot be considered as an attack against claim 1.

3.3 The appellant then argued that there existed exceptional circumstances justifying the late filing of this objection, namely that the opposition division had found that the feature "polymer oxygen barrier" was disclosed in the embodiment of figure 3 of D3, and it was only with the preliminary opinion of the board that they were confronted with a different interpretation of D3 resulting in the novelty of this specific feature.

3.4 The board disagrees again, because its preliminary opinion, set out in the communication under Article 15(1) RPBA, followed the argument put forward by the respondent in its reply to the appeal (see the last sentence at page 5 thereof) that the embodiment of figure 3 of D3 does not disclose a polymer oxygen barrier layer.

The fact that the board, in its preliminary opinion, found this argument persuasive cannot constitute an exceptional circumstance justifying the filing of new objections during oral proceedings.

This is because it is established case law (CLB, V.A. 4.5.8 b), 4.5.6 c), h)) that a preliminary opinion of the board based exclusively on the submissions made by the parties in the grounds of appeal and the reply is not in itself an exceptional circumstance justifying amendments to a party's case, even if that opinion diverges from the party's position on a given point and from the opinion of the opposition division. The appellant had to expect that the board might express a preliminary opinion deviating from the opposition division's decision.

For the reasons set out above, the board decides not to admit the novelty objection against the subject-matter of claim 1 of the main request based on the embodiment of figure 8 of document D3 into the proceedings under Article 13(2) RPBA.

4. Novelty objection against claim 2 based on D3, figure 8

4.1 The novelty objection raised against claim 2 and based on the embodiment of figure 8 of D3 in section 3.3.1 of the statement of grounds of appeal reads as follows:

"D3, column 4 line 66-column 5 line 3: "In FIG. 8, the multilayer film comprises thick and resistant structure layers 12 … [an] unwoven structure of plastic material. These structure layers are bonded to a thin oxygen-impermeable layer 13".

Figure 8 clearly shows the thickness reduced areas 3 in each of the layers 12 (referenced in column 4 lines 61-63 in relation to Figure 7). A plurality of carrier layers of the film in D3 are therefore weakened. Claim 2 is therefore also not novel over D3."

4.2 During oral proceedings, when discussing this objection, the appellant argued for the first time that the description of the embodiment of figure 8 in D3 also disclosed the feature "essentially fully compostable film".

Similarly to what they already submitted during the discussion of the novelty objection raised against claim 1 and based on figure 8 of D3, the appellant argued that this argument was no amendment to their appeal case, but a mere refinement, and that there existed exceptional circumstances justifying the late filing of this argument.

These were again that the opposition division had found that the feature "polymer oxygen barrier" was disclosed in the embodiment of figure 3 of D3, and it was only with the preliminary opinion of the board that they were confronted with a different interpretation of D3 resulting in the novelty of this specific feature.

4.3 Contrary to the appellant, the board sees in this new argument an amendment to the appellant's appeal case, since it was brought forward for the first time during the oral proceedings. The board is not convinced that the filing of this new argument during oral proceedings is justified because the fact that the board, in its preliminary opinion, followed an argument of the respondent does not constitute an exceptional circumstance in the sense of Article 13(2) RPBA, for the reasons already discussed in section 3.4 above.

The new argument that the embodiment of figure 8 of D3 discloses the feature "essentially fully compostable

film" was therefore not admitted into appeal proceedings.

4.4 The objection of lack of novelty raised against claim 2 submitted in writing (see point 4.1 above), clearly does not address the feature "essentially fully compostable film", which is however comprised by the subject-matter of claim 2 because of its dependency from claim 1.

Since this feature is neither discussed nor demonstrated to be disclosed in the embodiment of figure 8 of D3, the novelty objection raised against the subject-matter of claim 2 is not convincing.

Thus, the subject-matter of claim 2 of the main request is novel over the disclosure of D3.

5. Novelty of claim 22 of the main request

5.1 The opposition division acknowledged novelty of the subject-matter of claim 22 of the main request over D3 on the basis of the feature "essentially fully compostable".

5.2 The appellant contests the above findings arguing that this feature could not justify novelty of the subject-matter of claim 22 of the main request because claim 22 did not foresee the presence of a laminated, essentially fully compostable film as a part of the closing element as a mandatory requirement (see point 1.3.4 above).

The appellant then argues that the method of claim 22 is known from the combination of the disclosure in

column 2, lines 21-27, of D3, disclosing a method for manufacturing a capsule, comprising the steps of

- manufacturing of a housing
- manufacturing of a laminated film
- at least partial filling of the housing
- connecting of the film to the housing in such a way that the substance is enclosed in the capsule,

with the embodiment of figure 3 of D3, from which the structural features related to the housing (see method step A) and related of the laminated film (see method step B) could be derived.

The appellant also refers to the passage at column 3, lines 53 to 58, of D3.

5.3 The board notes that the presence of a laminated, essentially fully compostable film as a part of the closing element is not mentioned in claim 22, and that the initial reference to claim 1 contained in claim 22 is optional ("particularly a capsule according to one of claims 1-20").

The board therefore agrees with the appellant that claim 22 does not foresee the presence of a laminated, essentially fully compostable film as a mandatory requirement (see point 1.3.4 above).

5.4 The subject-matter of claim 22 of the main request is however new, for the following reasons, put forward by the respondent.

The passage of D3 at column 2, lines 21 to 23, to which the appellant refers, belongs to the "Summary of the Invention" and reads as follows:

"a process for the production of the package in which

the body of the cartridge is thermoformed or stamped from a first film, the body thus formed is filled with a powder-form beverage preparation composition in a stream of inert gas, after which the membrane, which is formed from a second film, is sealed to the body of the cartridge".

There is no mention, in this passage, of any step of manufacturing of a laminated film which comprises an oxygen barrier layer and which film comprises at least one carrier layer connected to the oxygen barrier layer, wherein at least one carrier layer is provided with at least one weakened area, as required by method step B) of claim 22.

As already discussed above (see point 2.5), the passage at column 4, lines 13 to 35, (to which the appellant also refers) does not disclose such a polymer oxygen barrier layer either.

The passage at column 3, lines 53 to 58 (to which the appellant also refers) is also not relevant in that respect, because the features described therein do not relate to the laminated film, but to the body of the capsule.

For the above reasons, the board concurs with the findings of the appealed decision that the subject-matter of claim 22 of the main request is new over the disclosure of D3.

6. Inventive step of claim 1 (Article 100(a) and 56 EPC)

6.1 The opposition division acknowledged inventive step of the subject-matter of claim 1 of the main request starting from D3 as closest prior art in combination

with the common general knowledge, as reflected by D4 or D5.

6.2 The appellant argues that the subject-matter of claim 1 of the main request lacks inventive step contesting the findings of the opposition division summarized above with the following arguments.

6.2.1 The embodiment of figure 3 of D3 already comprises the feature of claim 1 that at least a part of the closing element is composed of a laminated film (see column 4, lines 28- 32) comprising a plurality of polymer layers, one of them being of polyester filled with silica (column 4, line 29).

Starting from this embodiment of D3, the problem to be solved in view of the two distinguishing features identified in sections 2.4 and 2.5 above is, as explained in paragraph [0004] of the patent in suit, to provide a reliably functioning capsule for preparing beverages which, particularly after use, leads to reduced environmental pollution.

The skilled person trying to solve this problem is however aware from D3 itself that providing protection against oxidation is advantageous (see D3, column 4, line 13: "preferred version")

The skilled person also knows that there are polyester materials readily available, which are compostable and can be used to reduce pollution.

This is proven by D4, which is a document reflecting the knowledge of a skilled person, and in particular by page 1286 thereof ("3.1. Polyesters").

This is also confirmed by D5, which is also a document reflecting the common general knowledge of a skilled person, in particular on page 309, "2.2.1 Aliphatic polyesters", and page 322 "3.2.2.1 Microbial polyesters") thereof.

The skilled person is also well aware that when compostable polymers are used for packaging of perishable goods, as it is in the case of the capsule of figure 3 of D3, oxygen protection may be useful (see D4, point 10.2, on page 1325 "Packaging").

Taking the above into account it is evident, according to the appellant, that a skilled person would immediately select one of these known compostable polyesters, as the polyester material to be used, together with an oxygen barrier layer, for the capsule of figure 3 of D3, and in particular for the closing element thereof (the membrane).

This is because it is evident that making the entire capsule compostable and impermeable to oxygen, including the closing element, would lead to increased reliability and reduced environmental pollution, particularly after use.

The skilled person would see the advantages of these teachings and have no practical difficulties in applying it to the known capsule.

In this way the skilled person would arrive at the subject-matter of claim 1 of the main request without having to exercise any inventive skill.

Consequently, the subject-matter of this claim does not involve an inventive step.

6.3 The board concurs with the problem formulation proposed by the appellant but is not convinced by the above arguments that the subject-matter of claim 1 lacks inventive step for the following reasons.

6.4 The appellant's argument that a skilled person, motivated by reducing environmental pollution, would immediately use generally known compostable polyester materials such as those mentioned in D4 or D5 for the closing element disclosed in figure 3 of D3 is already not convincing.

This is because, as observed by the opposition division (see decision under appeal, II.15.1), *"the materials used for such capsules as in D3 have to fulfill specific requirements e.g. with regard to pressure resistance, barrier properties and food compatibility."*

There is no evidence that the functionality of the closing element would be maintained after such substitution without requiring further modifications.

This is because merely knowing that compostable polymers can be used in food packaging applications is not enough for concluding that these materials have the required pressure and temperature resistance.

No evidence has been provided to establish that the compostable materials mentioned in D4 and in D5 are suitable for being used in the closing element of a capsule for preparing beverages.

6.5 In addition, using the compostable polyester materials taught by D4 and D5 would also not be sufficient,

starting from the embodiment of figure 3 of D3 to arrive at the subject-matter of claim 1.

While the appellant argues that D3 itself teaches that protection against oxidation is advantageous and that this feature is also mentioned in D4, these general statements neither provide any specific teaching to combine oxygen protection with compostable materials, nor address the particular technical challenges of maintaining functionality while achieving compostability.

Document D4, specifically at page 1286, section "3.1. Polyesters", cited by the appellant, contains a comprehensive discussion of polyester materials and their biodegradable properties. However, upon detailed examination, this section does not contain:

- any teaching regarding oxygen barrier properties of polyester materials;
- any discussion of the implementation of such materials as oxygen barrier layers;
- any reference to the functional requirements of beverage capsule components.

D4, point 10.3 at pages 1235 and 1236 ("Packaging") mentions low oxygen permeability of polysaccharide-based biopolymers such as "pullulan" and "chitosan" not as a property of polyesters.

Similarly, document D5 on page 309, section "2.2.1 Aliphatic polyesters", and on page 322, section "3.2.2.1 Microbial polyesters", both passages being cited by the appellant, is also silent regarding:

- oxygen barrier properties of the discussed materials;

- application of such materials specifically as oxygen barrier layers;
- implementation in beverage capsule closing elements.

Therefore, replacing the polyester material of the closing element of D3 with one of these known materials, without making further modifications, would still result in a closing element lacking the presence of a polymer oxygen barrier layer.

6.5.1 For the above reasons, the subject-matter of claim 1 of the main request involves an inventive step over D3 in combination with the common general knowledge of a skilled person.

7. Inventive step - further arguments - admittance

7.1 During oral proceedings, when discussing inventive step starting from D3, the appellant formulated a new objection based, for the first time, on a partial problem approach, and submitted that there existed exceptional circumstances justifying the late filing of this new line of attack.

These were again (see sections 3.3 and 4.2 above) that the opposition division had found that the feature "polymer oxygen barrier" was disclosed in the embodiment of figure 3 of D3, and it was only with the preliminary opinion of the board that they were confronted with a different interpretation of D3 resulting in the novelty of this specific feature.

7.2 The board is not convinced that the filing of this new argument during oral proceedings is justified, for the reasons already discussed in section 3.4 and 4.3 above,

and therefore decides not to admit this new line of attack based on partial problems into the appeal proceedings (Article 13(2) RPBA).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairwoman:

G. Nachtigall A. Beckman

Decision electronically authenticated