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**Datasheet for the decision
of 28 November 2025**

Case Number: T 1812/23 - 3.3.03

Application Number: 07820618.2

Publication Number: 2074175

IPC: C08L67/02

Language of the proceedings: EN

Title of invention:

BIODEGRADABLE MULTIPHASE COMPOSITIONS BASED ON STARCH

Patent Proprietor:

NOVAMONT S.p.A.

Opponent:

bio-tec Biologische Naturverpackungen GmbH & Co. KG

Relevant legal provisions:

EPC Art. 84

RPBA 2020 Art. 12(2)

Keyword:

Claims - clarity (no)

Appeal case directed to objection on which decision was based

Decisions cited:

T 0773/21



Beschwerdekammern

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Case Number: T 1812/23 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 28 November 2025

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
3 August 2023 concerning maintenance of the
European Patent No. 2074175 in amended form.**

Composition of the Board:

Chairman D. Semino
Members: D. Marquis
G. Decker

Summary of Facts and Submissions

I. The appeal lies from the interlocutory decision of the opposition division concerning maintenance of European patent No. 2 074 175 in amended form according to the claims of auxiliary request 4 and an adapted description both filed at the oral proceedings before the opposition division and the figures of the patent specification.

II. Claim 1 of auxiliary request 4 reads as follows:

"1. Biodegradable composition characterized by comprising three phases:

A. a continuous phase consisting of a matrix of at least one tough hydrophobic polymer incompatible with starch;

B. a homogeneously dispersed nanoparticulate starch phase;

C. a further dispersed phase of at least one polymer with Modulus greater than 1000 MPa, said polymer being a polyhydroxyalkanoate;

and having:

- a Modulus greater than 300 MPa;

- a substantial isotropy in the two longitudinal and transverse directions in relation to tear propagation;

- particles of the dispersed starch phase (B) with mean dimensions of less than 0.3 μm , measured according the [sic] method disclosed in the description,

wherein the composition is obtainable by processing the components of the composition in an extruder or other machine capable of providing conditions of temperature and shear such that a reduction in the dimensions and in the number of the typical lamellar structures of the dispersed phase (C) is obtained".

- III. In the decision under appeal, which was additionally based on four sets of claims filed as main request and auxiliary requests 1 to 3, it was concluded, as far as relevant to the present appeal, that claim 1 of auxiliary request 4 fulfilled the requirements of Article 123(2) EPC and Article 84 EPC and that its subject-matter was sufficiently disclosed, novel and inventive.
- IV. The opponent (appellant) lodged an appeal against the decision of the opposition division.
- V. Oral proceedings before the Board were held on 28 November 2025 in the presence of both parties.
- VI. The final requests of the parties were as follows:
- The appellant requested that the decision under appeal be set aside and that the patent be revoked.
- The patent proprietor (respondent) requested that the appeal be dismissed.
- VII. The parties' submissions, in so far as they are pertinent, may be derived from the reasons for the decision below. The only disputed point decided upon by the Board concerned the clarity of claim 1 of auxiliary request 4 held allowable by the opposition division.

Reasons for the Decision

Auxiliary request 4

1. The respondent's main (and sole) request in appeal was that the appeal be dismissed, i.e. that the decision of the opposition division to maintain a patent in amended form on the basis of the claims of auxiliary request 4 be confirmed.
2. Clarity
 - 2.1 The appellant objected to claim 1 of that request, arguing *inter alia* that the feature "such that a reduction in the dimensions and the number of the typical lamellar structures of the dispersed phase (c) is obtained" lacked clarity under Article 84 EPC. The appellant contended that the skilled reader could not ascertain what were "typical lamellar structures," what constituted the reference with respect to which "reduction" in dimensions and number should be obtained, and what qualified as such a "reduction" (statement of grounds of appeal, section V, page 8).
 - 2.2 Admissibility of the objection
 - 2.2.1 The respondent contested the admissibility of the clarity objection into the appeal proceedings, arguing that, while clarity objections had been raised against claim 1 of auxiliary request 3 during the oral proceedings before the opposition division, none had formally been raised during these oral proceedings against claim 1 of auxiliary request 4 (respondent's rejoinder to the statement of grounds of appeal, sections 2.1 and 3, and letter dated 26 November 2025).

2.2.2 The Board finds in the minutes of the oral proceedings before the opposition division (page 5, first paragraph on auxiliary request 3) a record that the opponent had raised a further clarity objection against claim 1 of auxiliary request 3. The objection is addressed in the appealed decision and concerns the process-by-process feature added at the end of the claim and in particular the feature "a reduction in the dimension and in the number of the typical lamellar structures of the dispersed phase (C)" (referred to as feature 1.10a in section 5.2.2, point 3, last paragraph of page 12 of the decision and in the second paragraph of page 14). While the opposition division rejected the clarity objection against claim 1 of auxiliary request 3, claims 4 and 5 of that request were found to be non-compliant with Article 123(2) EPC which caused the filing of auxiliary request 4 at the oral proceedings (decision under appeal, section 6). Regarding auxiliary request 4, the minutes (page 7, first paragraph on auxiliary request 4) state that "[t]he opponent did not raise **further** arguments to those already submitted against claim 1 of Auxiliary Request 3" (emphasis added by the Board).

2.2.3 The decision under appeal (section 6.2.2) also shows that the requirements under Article 84 EPC were considered and decided upon for auxiliary request 4. Crucially, the decision explicitly states, concerning claim 1 of auxiliary request 4 (which is identical to claim 1 of auxiliary request 3), that the opponent "did not have **further** arguments to the ones already submitted against claim 1 of auxiliary request 3" (emphasis added by the Board). This statement confirms that the opposition division understood the objections under Article 84 EPC raised against auxiliary

request 3, including the specific objection on page 12, point 3, to be maintained against claim 1 of auxiliary request 4.

2.2.4 The opposition division reinforced this understanding by concluding that "For the same reasons as those given for claim 1 of auxiliary request 3, and since claim 1 of auxiliary request 4 is identical to claim 1 of auxiliary request 3, the opposition division is of the opinion that claim 1 of auxiliary request 4 meets the requirements of Article 84 EPC" (appealed decision, first paragraph, page 17).

2.2.5 Therefore, the facts of the present case demonstrate that the objection under Article 84 EPC raised against the disputed feature in claim 1 of auxiliary request 3 was explicitly upheld on identical grounds against claim 1 of auxiliary request 4 at the oral proceedings before the opposition division and decided upon by the opposition division. There is no indication in the whole of the documents relevant to the opposition proceedings that the objection was not maintained up to the appeal proceedings. Consequently, the appellant's clarity objection to claim 1 of auxiliary request 4 - as decided upon in the appealed decision and raised again in the statement of grounds of appeal (section V, page 8) - forms part of the appeal proceedings pursuant to Article 12(2) RPBA.

2.2.6 The Board does not find that decision T 773/21, cited by the respondent in its letter of 26 November 2025 to counter this conclusion, is relevant to the present case.

(a) In case T 773/21, the opponent had raised a novelty objection against a higher-ranking auxiliary

request but did not explicitly re-raise this novelty objection against a further auxiliary request filed by the patent proprietor during the oral proceedings before the opposition division. The minutes contained no indication regarding a novelty objection by the opponent against that auxiliary request, and the opposition division did not deal with such an objection in the decision under appeal. The board in T 773/21, Reasons 8.5, found that an objection raised with regard to other requests previously dealt with or still pending could not be tacitly transferred to a newly submitted request. As long as an objection was not explicitly stated or submitted, it could not be considered to have been raised or filed. In this regard, the board also noted in Reasons 8.8 that, even though the opposition division's opinion on novelty of the subject-matter of claim 1 of the higher-ranking request was known, it could not be simply transposed to claim 1 of the newly filed auxiliary request since its subject-matter was different. Consequently, the board regarded the opponent's novelty objection against the auxiliary request at issue as an amendment to the opponent's appeal case within the meaning of Article 12(2) and 12(4) RPBA.

- (b) The situation in case T 773/21 differs substantially from the present case. Here, it is established by the minutes and the decision under appeal that the appellant did maintain an objection of lack of clarity against claim 1 of auxiliary request 4 which it had already raised against claim 1 of auxiliary request 3. Furthermore, the objection concerned a claim that was identical to the corresponding claim of auxiliary request 3.

Lastly and most importantly, the clarity objection raised by the appellant against auxiliary request 4 constituted an objection on which the decision under appeal was based.

2.3 Evaluation of the objection

2.3.1 The objection of the appellant as laid out in the statement of grounds of appeal relates to the definition of the biodegradable composition of claim 1 by means of a product-by-process feature, i.e. a feature related to its preparation process, namely "wherein the composition is obtainable by processing the components in the composition in an extruder or other machine capable of providing conditions of temperature and shear such that a reduction in the dimensions and in the number of the typical lamellar structures of the dispersed phase (C) is obtained". That product-by-process feature was introduced in claim 1 of auxiliary requests 3 and 4 during the opposition proceedings and was not part of the granted claims. As such the clarity of that feature under Article 84 EPC can be addressed in opposition.

2.3.2 The preparation process of the composition – specifically, the use of an extruder operated under selected temperature and shear conditions – is disclosed in paragraphs 5, 13, and 14 of the patent in suit. These passages, together with paragraph 31, teach that the specific operation of the extruder, combined with the dimensions of the particles of the dispersed starch phase (B), is critical to produce flexible films with both high modulus and isotropy in the longitudinal and transverse directions. Such properties are essential for the intended use of the films in manufacturing bags and wrappings capable of supporting

heavy weights without significant deformation or transverse fractures (see paragraphs 1, 11, and 31). Within this context, the decisive question is whether the product-by-process feature is inherently clear and whether the process imparts identifiable and unambiguous technical properties to the product (Case Law of the Boards of Appeal, 11th ed., 2025, II.A.7.1). In this respect, the requirement of clarity implies that the skilled person should be in the position to identify whether a product of the prior art is characterised by the critical feature or not.

- 2.3.3 The first critical aspect is that claim 1 and the patent fail to define what constitutes a "typical lamellar structure" of phase (C). The respondent argued in writing that typical lamellar structures are those which normally exist for polyhydroxyalkanoates when they are not specifically treated to remove such structures. It added during the oral proceedings before the Board that "typical" referred to lamellar structures present at the start of the extrusion process. This interpretation is neither derivable from the claim wording alone nor supported by the patent description. Moreover, it is not self-evident that a skilled reader would associate "typical" with structures formed at the beginning of the extrusion process as defined in claim 1, nor is it clear which temperature and shear conditions are intended to produce these "typical lamellar structures" – in any case no such information appears anywhere in the patent or is available from common general knowledge. Consequently, the wording "typical lamellar structures" does not provide clear boundaries for the defined structures, leaving the skilled person unable to determine which is the starting point from which a

reduction should take place.

2.3.4 The respondent further submitted during the oral proceedings that the endpoint of the preparation process – namely, the reduction in the dimensions and number of typical lamellar structures in phase (C) – would be readily ascertainable by a skilled person based on the isotropy of the films in tear propagation along the longitudinal and transverse directions. Even if this late argument were accepted – i.e., that a skilled person would recognise such a reduction upon achieving isotropy – the claim still lacks clarity, as it does not define isotropy unambiguously. The wording merely requires "substantial" isotropy in tear propagation without specifying a measurable threshold. Thus, the skilled person cannot reliably determine when isotropy (and thus the required reduction) has been achieved. The description offers no further clarification; in fact, paragraph 13 compounds the ambiguity by stating that the lamellar structures typical of phase (C) must be "substantially reduced in dimension and possibly eliminated". Whether a reduction has occurred then ultimately depends on the subjective assessment of the skilled person – a criterion that fails to distinguish clearly the claimed product from prior art compositions with similar three-phase systems (A)–(C).

2.3.5 The examples likewise provide no further insight on the question of clarity of the critical feature in claim 1. As the appellant noted, it is first doubtful whether the examples actually correspond to the subject-matter of operative claim 1 since they omit critical data, such as the modulus of component (C) or the mean dimensions of the dispersed starch phase (B). Besides, while paragraph 45 mentions that micrographs of samples

from examples 1 and 2 show "only a few sparse lamellae", this does not conclusively demonstrate an identifiable reduction in their dimensions or number. Furthermore, the micrographs discussed during the oral proceedings by the respondent (Figure 4 was argued to show reduced lamellar structures in a three phase composition according to operative claim 1) do not visibly confirm that any form of isotropy in tear propagation was achieved in these examples.

2.3.6 In summary, in the absence of a reference point with respect to which a reduction in the dimensions and in the number of the typical lamellar structures of the dispersed phase (C) should be obtained, and of identifiable product features which would allow the skilled person to determine whether a prior art product is characterised by such a reduction, the presence in claim 1 of the disputed feature results in a lack of clarity. In view of this, the subject-matter of claim 1 fails to meet the requirements of Article 84 EPC.

3. Since the Board concludes that claim 1 of auxiliary request 4 lacks clarity and there is no further claim request on file, there is no need to address any other issue and the patent is to be revoked.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



D. Hampe

D. Semino

Decision electronically authenticated