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Datasheet for the decision of 21 May 2025

Case Number: T 1151/23 - 3.3.07

Application Number: 11787120.2

Publication Number: 2575771

IPC: A61K9/14

Language of the proceedings: EN

Title of invention:
COMPOSITION COMPRISING BIODEGRADABLE POLYMERS FOR USE IN A COSMETIC COMPOSITION

Patent Proprietor:
Micro Powders Inc.

Opponent:
ECKART GmbH

Headword:
Composition comprising biodegradable polymers/MICRO POWDERS

Relevant legal provisions:
RPBA 2020 Art. 12(2), 12(4), 12(6)
EPC Art. 56

Keyword:

Admittance of D23-D25 and D26-D29 - No
Admittance of D19 and D20 filed during the opposition proceedings - Yes
All requests - Inventive step (No)

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Case Number: T 1151/23 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 21 May 2025

Former Appellant: (Patent Proprietor)	Micro Powders Inc. 580 White Plains Road Tarrytown, NY 10591 (US)
Representative:	f & e patent Braunsberger Feld 29 51429 Bergisch Gladbach (DE)
Appellant: (Opponent)	ECKART GmbH Güntersthal 4 91235 Hartenstein (DE)
Representative:	Strych, Sebastian Mitscherlich PartmbB Patent- und Rechtsanwälte Karlstraße 7 80333 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 12 April 2023 concerning maintenance of the European Patent No. 2575771 in amended form.**

Composition of the Board:

Chairman	A. Usuelli
Members:	D. Boulois
	Y. Podbielski

Summary of Facts and Submissions

I. European patent No. 2 575 771 B1 was granted on the basis of a set of 7 claims.

Independent claim 1 as granted read as follows:

"1. A powder composition suitable for use in a cosmetic composition, comprising at least one micronized biodegradable polymer, preferably polylactic acid (PLA), wherein the powder composition has a particle size from about 0.1 to about 44 microns with a mean particle size of 5 to 20 microns with a maximum particle size of 44 microns as measured per ASTM D4464 standard."

II. The patent had been opposed under Article 100 (a), (b) and (c) EPC on the grounds that its subject-matter lacked novelty and inventive step, was not sufficiently disclosed and extended beyond the content of the application as filed.

III. The appeal lies from the decision of the opposition division that the patent in amended form meets the requirements of the EPC. The decision was based on the claims as granted as the main request, on auxiliary requests 1-5 filed with letter of 12 January 2022, and on auxiliary requests 6-8 filed during the oral proceedings on 23 March 2023.

In comparison to the granted claim 1 of the main request, the subject-matter of claim 1 of auxiliary request 8 was amended by the additional feature

"further comprising an additive in the amount from about 0.1% to 99.5% by weight, wherein said additive comprises a wax in an amount from about 1% to 30% by weight".

IV. The documents cited during the opposition proceedings included the following:

D3: US 2004/0146540 A1
D4: DE 100 61 932 A1
D5: US 5,871,771 A
D19: Test results
D20: Powder binding study
D21: Naturesorb 1000 TDS
D22: Microsorb 988S TDS

V. According to the decision under appeal, the main request and auxiliary request 1 did not meet the requirements of Article 123(2) EPC in view of the subject-matter of claim 6.

Auxiliary request 2 met the requirements of Article 123(2) EPC and 83 EPC, and the subject-matter of claim 1 was novel over documents D3, D4 and D5.

With regard to inventive step, D3 was considered to represent the closest prior art; D3 failed to disclose a powder composition comprising a micronized biodegradable polymer, wherein the powder composition has a particle size from 0.1 to 44 microns, and the problem over D3 was the provision of an alternative powder composition suitable for use in a cosmetic composition. The claimed solution was obvious in view of the combined teaching of D3 and D4.

Auxiliary requests 3 and 4 did not meet the requirements of Article 123(2) EPC for the same reasons as respectively the main request and auxiliary request 1.

As the additional feature in claim 1 of auxiliary request 5, i.e. the presence of an additive comprising a binder or a wax, was not suitable for distinguishing the claimed subject-matter further from document D3, the subject-matter of claim 1 of auxiliary request 5 lacked inventive step for the same reasons as set out for auxiliary request 2.

Auxiliary requests 6 and 7 were not admitted into the proceedings as they were late-filed and not *prima facie* suitable for remedying the deficiencies identified by the opposition division under Article 123(2) EPC.

Auxiliary request 8 was admitted into the proceedings and met the requirements of Article 123(2) EPC, 83 and 54 EPC.

With regard to inventive step, the problem over D3 was the provision of an alternative powder composition. The solution defined in claim 1 of auxiliary request 8 was neither disclosed, nor rendered obvious by D3 alone or in combination with the available prior art. Nowhere was it suggested to provide a polylactic acid powder and a wax and to grind and/or sieve the resulting blend into a powder composition suitable for use in a cosmetic composition, let alone into a powder composition with the particle dimensions as recited in claim 1.

VI. The opponent (hereinafter the appellant), and the patent proprietor filed both an appeal against said decision.

VII. With the statement setting out the grounds of appeal dated 22 August 2023 the patent proprietor filed the main request and auxiliary requests 1-8 on file in the opposition proceedings.

VIII. With its letter dated 5 January 2024, the patent proprietor filed auxiliary requests 9-14 and submitted the following evidence:

D23: Additional experimental data
D24: US 6,429,261
D25: Sericite SL-012 information

The subject-matter of claim 1 was identical in all auxiliary requests 9-11 and comprised the feature "further comprising an additive in the amount from about 0.1% to 99.5% by weight, wherein said additive comprises **a binder or wax** in an amount from about 1% to 30% by weight" in comparison to claim 1 as granted, while the subject-matter of claim 1 of auxiliary requests 12-14 was identical to claim 1 of auxiliary request 8.

IX. With a letter dated 23 February 2024, the appellant submitted the following pieces of evidence:

D26: Presperse Catalog Europe-Asia 2011
D27: Review Synthetic Fluorphlogopite
D28: Presperse Product Catalog Fall 2015
D29: Presperse Catalog Powders & Consistency Factors 2015

X. The Board set out its preliminary opinion in a communication under Article 15(1) RPBA issued on 28 January 2025. The Board stated *inter alia* that the objections raised against auxiliary request 1-8 with regard to the allowability of the amendments or to inventive step also applied to auxiliary requests 9-14.

XI. Oral proceedings took place on 21 May 2025. During oral proceedings, it was concluded that none of the requests were inventive when starting from D3 as closest state of the art. At the end of the oral proceedings, the patent proprietor (hereinafter the respondent) withdrew its appeal.

XII. The arguments of the appellant may be summarised as follows:

Admittance of D23-D25 into the appeal proceedings

D23-D25 could and should have been filed during the opposition proceedings, in particular after the preliminary opinion of the opposition division stating that the examples did not fall under the scope of the claims. The examples of the patent did indeed not show any effect and could not be seen as a comparison over the disclosure of the closest prior art D3.

These experiments should have been filed at the latest with the statement of grounds of appeal of the patent proprietor and were furthermore not relevant, since the compositions described therein did not correspond to the subject-matter or to the disclosure of D3.

Admittance of D26-D29 into the appeal proceedings

These documents were filed by the appellant in reaction to the filing of documents D23-D25 and should be admitted if D23-D25 were admitted.

Admittance of D19 and D20 into the appeal proceedings

These documents should not be admitted into the appeal proceedings as the opposition division, when deciding to admit these documents, did not exercise its discretion correctly.

Auxiliary request 8 - Inventive step

D3 was the closest prior art and related to the same problem as the patent, namely the improvement of slip properties; the way of preparation of the particles and the fact that the particles were spherical was irrelevant. The presence of a binder and of a wax was disclosed in D3. No effect was shown over D3, neither in the patent nor in D19-D20, and in particular not over the whole scope of the claims, in view of the absence of a restriction of the type of polymer and the broad claimed amounts. The problem was the provision of an alternative powder composition, and the selection of the particle size and the addition of a wax were arbitrary limitations.

Auxiliary requests 9-14 Inventive step

The same arguments applied.

XIII. The arguments of the respondent may be summarised as follows

Admittance of D23-D25 into the appeal proceedings

The filing of these documents was a reaction to the decision of the opposition division that the examples did not fall under the scope of the claims. This point was a surprise, which justified the filing of these documents corresponding to the examples of the contested patent.

Auxiliary request 8 - Inventive step

D3 had a different teaching , namely the production of spherical particles. An effect was shown in the examples and described in the description of the patent. The effect could be extrapolated from polylactic acid (PLA) to any biodegradable polymer. The addition of a wax improved the properties of the powder composition.

Auxiliary requests 9-14 - Inventive step

The arguments concerning inventiveness remained the same as for auxiliary request 8.

XIV. Requests

The appellant requested that the decision under appeal be set aside and that the patent be revoked. They furthermore requested that the following requests and documents not be admitted into the appeal proceedings:
- auxiliary requests 8 and 9-14.
- documents D19, D20 and D23-D25.

The respondent requested that the appeal of the opponent be dismissed and the patent be maintained according to auxiliary request 8, or that the patent be maintained on the basis of one of auxiliary requests 9-14 filed with letter dated 5 January 2024.

Reasons for the Decision

1. Admittance of D23-D25 into the appeal proceedings

1.1 These documents have been filed by the respondent with its letter of 5 January 2024, in reply to the statement of grounds of appeal of the appellant. They constitute evidence that was not part of the facts on which the decision under appeal was based. For this reason, their filing amounts to an amendment of the respondent's case and the Board has discretion to admit them pursuant to Article 12(4) RPBA.

Relevant criteria for the exercise of the Board's discretion are the complexity of the amendment, the suitability of the amendment to address the issues which led to the decision under appeal and the need for procedural economy.

Moreover, the Board shall not admit evidence which should have been submitted in the proceedings leading to the decision under appeal (Article 12(6) RPBA).

1.2 According to the respondent, the data of D23- D25 were filed in reaction to the decision of the opposition division with regard to inventive step that none of the examples of the patent can be considered as being according to the invention, solely for the reason that

the particle size was not specified in the examples (see item 2.5.4.3 of the decision).

(a) In D23, Example 1 of the patent was reproduced, incorporating three types of polylactic acid particles into a powder composition: (1) comparative Sample 1 with a mean particle size of 16 to 20 µm and a maximum particle size of 74 µm; (2) a sample with Ecosoft 608XF comprising PLA of the claimed size and (3) a sample with Ecosoft 611 comprising PLA/wax of the claimed size. The data show that there is an effect linked with the particle size in comparison to Sample 1.

(b) D24 and D25 provide information about the particle size of Sericite S-012, i.e. it indicates that Sericite SL-012 has a particle size within the range of 2 to 10 µm (D24, column 47, table 12, second line), with a medium particle size of 4,7 µm (see D25).

1.3 In its preliminary opinion, in relation to the requirement of sufficiency of disclosure, the opposition division expressed the view that **none of the examples disclosed in the opposed patent were falling within the scope of the claims as they were not showing powders with the required particle size and maximum particle size**; the opposition division added that, even for the case that the examples were disclosing such powders, these powders could not have been available at the priority date of the opposed patent (cf. point 5.2.1 of the annex to the summons dated 19 April 2022).

The same objections were raised by the appellant as early as in its notice of opposition (see point IV of notice of opposition).

The respondent filed D19 and D20 in response to the preliminary opinion of the opposition division.

During the appeal proceedings, and in its letter of 5 January 2024, the respondent considered that powder compositions containing the combination of the claimed particles with a wax additive had advantageous properties as shown in the patent (para [0051] and [0073]) and in the experimental data of D19 and D20 as well as in D23.

1.4 In view of the file history, the Board considers that D23-D25 could and should have been filed earlier in the opposition proceedings in response to the summons to oral proceedings.

Although these documents are filed in the appeal proceedings with regard to the assessment of inventive step, the opposition division had already observed in its annex to the summons, within the context of the assessment of sufficiency of disclosure, that the examples disclosed in the patent did not fall within the scope of the claims. This observation regarding the content of the patent, made in the context of sufficiency of disclosure, is also directly relevant for the assessment of inventive step. Thus, documents D23-D25 are not admitted since they could and should have been filed in response to the preliminary opinion of the opposition division (Article 12(6) RPBA).

1.5 Moreover, the technical content of said documents appears to be questionable with regard to the assessment of inventive step and would necessitate an investigation with regard to their relevance.

Indeed, D23 does not provide a comparison with the teaching of the closest prior art D3 which discloses particles of PLA with an average particle size of 10 µm, possibly combined with additives such as zinc oxide, titanium powder, or starch powder. Instead, D23 only includes a comparative example relating to particles of PLA of a mean particle size of 16-20 µm (Sample 1).

D23 neither provides a comparison with a powder composition corresponding to the subject-matter of claim 1 of auxiliary requests 9-11, which relate to a powder composition comprising an additive and a binder and/or a wax.

It is furthermore questionable whether the potential effects shown in D23 can be extrapolated to the claimed subject-matter. The Board notes indeed that the claimed subject-matter of all requests is not limited to the specific polymer PLA used in the experiments and that it comprises amounts of additives which can be up to 99.5% of the powder composition.

Finally, D23 tends to show an improvement in the spreading and slipping property of compositions comprising PLA and wax over compositions comprising only PLA. It is questionable whether such property of wax has been identified in the patent. The Board notes that the patent mentions in paragraph [0046] that "one or more additional components can be added with the only caveat being that they are cosmetically compatible with the PLA powder" and that the same passage identifies waxes, polymers and binders as suitable additives. As also pointed out by the appellant, there seems to be no indication that wax could improve the slip properties of the powder compositions.

With regard to D24 and D25, these documents were submitted to show that the Sericite particles of the examples of the patent have a size between 2 and 10 µm and a mean particle size of about 4.7 µm (see D24, Table 12). The relevance of this information appears also questionable, since it does not concern particles of biodegradable polymer or PLA, and since the claimed particles have a mean particle size of 5 to 20 µm.

1.6 Consequently, documents D23-D25 add complexity to the case and do not appear suitable to address the issues which led to the decision under appeal, in particular with regard to the assessment of inventive step.

Accordingly, none of the criteria of admissibility, i.e the complexity of the amendment, the suitability of the amendment to address the issues which led to the decision under appeal, and the need for procedural economy, are met and speak in favour of admitting documents D23-D25.

Thus, documents D23-D25 are not admitted into the appeal proceedings (Article 12(4) and 12(6) RPBA).

2. Admittance of D26-D29 into the appeal proceedings

These documents have been filed by the appellant with its letter dated 23 February 2024, in response to the filing of D23-D25 by the respondent. According to the appellant all these documents demonstrate that the particle size of Sericite SL-012 disclosed in document D24 is unequivocally an average particle size, rather than the D_0 and D_{100} particle size.

Given that documents D23-D25 are not admitted into the appeal proceedings, the content of D26-D29 becomes irrelevant and, consequently, D26-D29 are also not admitted.

3. Admittance of D19 and D20 into the appeal proceedings

The appellant requested that D19 and D20, which had been filed by the respondent during the first instance proceedings and were admitted by the opposition division, not be admitted in the proceedings. In view of the outcome of this case, the Board considers it neither necessary nor expedient to provide reasons for its decision to admit these documents into the proceedings.

4. Auxiliary request 8 - Inventive step

4.1 This request corresponds to the request which was maintained by the opposition division.

The claimed invention relates to polymer powder compositions suitable for personal care and as cosmetic compositions.

More particularly, claim 1 of auxiliary request 8 relates essentially to a powder composition comprising at least one micronized biodegradable polymer, with a particle size from 0.1 to a maximum size of 44 microns and a mean particle size of 5 to 20 microns, and further comprising an additive in the amount from 0.1% to 99.5% by weight, wherein said additive comprises a wax in an amount from 1% to 30% by weight.

Claim 1 of auxiliary request 3 differs from claim 1 of auxiliary request 8 in that the additive comprises a **binder or** wax.

During the oral proceedings the Board concluded that the subject-matter of claim 1 of auxiliary request 3 was not inventive when starting from D3 as the closest prior art. In this context it was noted that **neither alternative of an additive (binder and wax)** conferred an inventive step on the subject-matter of the claim. It was also observed that this conclusion applied to all the remaining auxiliary requests.

As explained below, this conclusion therefore also applies to the subject-matter of auxiliary request 8 which indicates that "the additive comprises a **wax in an amount from about 1% to 30% by weight**".

4.2 The opposition division considered that D3 was the closest state of the art.

The appellant considers that D4 or D5 are equally suitable as closest state of the art. The Board notes however that D4 and D5 relate to microparticles comprising an active agent and appear to be technically remote from the claimed invention.

Accordingly, the Board concurs with the opposition division in the choice of D3 as closest prior art.

4.3 Document D3 relates to powder compositions for topical applications comprising PLA microparticles with an average diameter of 0.01 to 1000 µm, preferably **1 to 100 µm**, and cosmetic powder base components (claim 1, paragraph [0055]). In paragraph [0085] of D3,

polylactic acid spherical microparticles having a diameter of about 10 microns are obtained.

Examples 1-8 disclose cosmetic compositions comprising said PLA microparticles and Table 1 provides data regarding the microparticles. It shows that the microparticles used in the cosmetic composition of example 1 have **an average particle diameter of 10 µm**, and that 99% of these microparticles have a large diameter/small diameter ratio of 1.5 or less. Comparable results are obtained for the remaining examples 2-8. All the examples comprise further excipients, in particular a wax, and are in the form of emulsified compositions.

D3 also discloses microparticles of PLA with a further compound, such as zinc oxide, titanium white, starch or ferrite (see microparticles (B), (F), (G) and (H) on page 7).

D3 does however not give any indication with regard to the range of particle size used in its example, so that it is not possible to conclude that their size is limited to the claimed range of 0.1 to 44 µm and therefore it does not exceed 44 µm.

Moreover, D3 does not disclose the presence of a wax in the powder composition.

4.4 The opposition division defined the problem over D3 as the provision of an alternative powder composition.

4.5 The Board concurs with this definition of the problem as there is no evidence of an effect or improvement over the disclosure of D3, in any passage or document cited by the respondent.

4.6 With regard to the technical effects arising from the distinguishing features, the respondent referred to some passages of the specification and to the experimental data of the examples, arguing that examples 4 and 5 could serve as comparative examples as they corresponded to the compositions shown in D3. D19 and D20 were also cited.

4.6.1 The contested patent describes in the description the advantages of polylactic acid (PLA) microparticles having a maximum particle size of <44 microns in paragraph [050]. It further explains that when the compositions contain a powder with particle size over 44 microns the compositions will not provide a good sensation or texture and the user will "feel" the powder particles upon application which will lead to discomfort.

Examples 1-3 of the patent disclose pressed powder compositions comprising PLA with a mean particle size of 8.0 to 12.0 microns, said powder having a good slip resistance and texture (see par. [0073], [0078] and [0083] of the specification). Example 3 also discloses the presence of wax in the powder composition.

Examples 4 and 5 of the patent disclose foaming body scrub compositions in powder form containing polylactic acid with a maximum particle size of 840 microns and 297 microns respectively. These compositions are environmentally friendly and have the same performance as body scrubs made with synthetic polymer particles (see par. [00899[] and [0096] of the specification). **As these compositions are abrasive scrub compositions, the respondent concluded that they provided evidence of an undesired effect relating to the texture of the**

compositions which was not provided by the compositions of examples 1-3 of the patent.

4.6.2 In the Board's view, the cited passages and examples of the contested patent fail to provide a comparison with a composition with a particle size exceeding 44 µm, let alone with the powder compositions disclosed in D3, i.e. having an average particle diameter of 10 µm and 99% of these microparticles having a large diameter/ small diameter ration of 1.5 or less. Furthermore, no comparison is provided to substantiate an effect linked to the presence of wax in the composition.

Examples 4 and 5 cannot be seen as representative of the compositions of D3 since they do not indicate the average particle size of the PLA microparticles. Moreover, both examples contain a variety of other ingredients compared to the compositions of examples 1-3 that could provide a technical contribution.

Furthermore, general statements in the description cannot serve as evidence of an effect over the prior art.

In addition, the generalisation of any effect which could potentially have been shown in the specific examples or teaching of the patent appears questionable in view of the subject-matter of claim 1. The claimed subject-matter remains very general with regard to the amounts and the quality of the ingredients; indeed claim 1 relates to any biodegradable polymer, and not specifically to PLA which is the polymer used in the examples, and while the claimed amounts of the additive are comprised in the range between 0.1% and 99.5%, in the examples the amount of additive is unspecified (cf. example 3).

Finally, examples 1 to 3 of the patent fail to disclose the particle size range of the powders. Thus, it is also questionable whether these powders fulfill the requirement of having a particle size between 0.1 and 44 micron.

4.6.3 The same conclusions apply to the experiments D19 and D20, which do not show a comparison with the compositions disclosed in D3.

(a) D19 provides test data obtained with powder compositions comprising PLA (Ecosoft 608 and 608XF) or a PLA/wax combination (Ecosoft 611). The data of D19 relate to the drop test, the mattifying properties, the oil absorption and the light diffusion properties. D19 discloses two cosmetic compositions on its first page, one with the product Ecosoft 608 and a second composition different from the first one and comprising the product Ecosoft 6275. In addition to not providing any comparison with the powder compositions of D3, the tests disclosed in D19 are unusable since it is not clear which compositions have been compared and which are their components.

(b) The same conclusion applies to the content of D20 which evaluates different binders for powder applications through the use of the drop test. According to the technical comments in D20, the Figures shown in D20 are supposed to show that the products from Micro Powders provide better results. D20 does however not provide any information on the different binders tested, nor on what is concretely compared. In any case, there is no comparison provided with compositions as disclosed in D3.

4.7 It remains to be determined whether the claimed solution is obvious. Documents D3 and D4 were mentioned in the decision of the opposition division, while the appellant also cites document D6.
The Board considers that claimed solution is obvious in view of D3 alone.

4.7.1 The claimed particle size range of 0.1 to 44 µm is seen as an arbitrary selection. Indeed, as previously discussed, this particle size range is not associated with any technical effect. Thus, it does not provide any inventive contribution to the subject-matter of claim 1.

Furthermore D3 discloses in example 1 the PLA Microparticles (A) which are spherical particles with an average diameter of 10 µm, wherein 99% of these microparticles have a large diameter/small diameter ratio of 1.5 or less, which corresponds at least partially to the claimed size range.

4.7.2 With regard to the presence of wax, D3 discloses the addition of wax(ex) into the final compositions (see for instance examples 1 and 2 of D3). In the Board's view, it does not appear possible to differentiate the compositions of D3 from the composition of the invention in which the wax has been added to the powder rather than being added to the final composition. The claimed powder composition is indeed only an intermediary product, whereas the final product may take a different form, such as for instance a liquid or a gel (see for instance par. [0002] or [0045]).

There is no evidence to suggest that incorporating the wax into the polymer powder would produce a different effect compared to adding the wax to the final composition containing the polymer powder.

The presence of a wax in the claimed powder composition is therefore an arbitrary choice which is obvious over the disclosure of D3.

4.8 In view of the above, auxiliary request 8 does not meet the requirements of Article 56 EPC.

5. Auxiliary requests 9-14 Inventive step

Claim 1 of auxiliary requests 9-11 comprises the feature **"further comprising an additive in the amount from about 0.1% to 99.5% by weight, wherein said additive comprises a binder or wax in an amount from about 1% to 30% by weight"**, whereas claim 1 of auxiliary requests 12-14 comprise the feature also present in claim 1 of auxiliary request 8 namely, **"further comprising an additive in the amount from about 0.1% to 99.5% by weight, wherein said additive comprises a wax in an amount from about 1% to 30% by weight".**

In view of the presence of wax as additive in all these requests, **the conclusion reached for auxiliary request 8 with regard to inventive step applies *mutatis mutandis* to each of auxiliary requests 9-14. Accordingly, these requests do not meet the requirements of Article 56 EPC.**

Order

For these reasons it is decided that:

The decision under appeal is set aside.

The patent is revoked.

The Registrar: The Chairman:

B. Atienza Vivancos A. Usuelli

Decision electronically authenticated