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**Datasheet for the decision
of 17 January 2023**

Case Number: T 0042/20 - 3.3.07

Application Number: 12719131.0

Publication Number: 2694016

IPC: A61K8/11, A61K8/73, A61Q5/00

Language of the proceedings: EN

Title of invention:
SHAMPOO COMPOSITIONS WITH INCREASED DEPOSITION OF POLYACRYLATE
MICROCAPSULES

Patent Proprietor:
The Procter & Gamble Company

Opponent:
Cabinet Beau de Loménie

Headword:
Shampoo compositions with increased deposition of polyacrylate
microcapsules / PROCTER & GAMBLE

Relevant legal provisions:
EPC Art. 54(2), 56, 83
RPBA 2020 Art. 11
EPC R. 103(1)(a)

Keyword:

Substantial procedural violation - (no)

Novelty - main request (no) - auxiliary request (yes)

Sufficiency of disclosure - auxiliary request (yes)

Inventive step - auxiliary request (yes)



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0042/20 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 17 January 2023

Appellant: Cabinet Beau de Loménie
(Opponent) 158, rue de l'Université
75007 Paris (FR)

Representative: Cabinet Beau de Loménie
158, rue de l'Université
75340 Paris Cedex 07 (FR)

Respondent: The Procter & Gamble Company
(Patent Proprietor) One Procter & Gamble Plaza
Cincinnati, OH 45202 (US)

Representative: Mathys & Squire
Theatinerstraße 7
80333 München (DE)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 28 October 2019
rejecting the opposition filed against European
patent No. 2694016 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman D. Boulois
Members: E. Duval
Y. Podbielski

Summary of Facts and Submissions

- I. The appeal was filed by the opponent (appellant) against the decision of the opposition division to reject the opposition filed against European patent 2 694 016 (the patent).
- II. With the statement setting out the grounds of appeal, the appellant contended that the opposition division had committed a substantial procedural violation, and raised objections against the maintenance of the patent.
- III. With the reply to the appeal, the respondent (patent proprietor) defended their case on the basis of the patent as granted, and submitted auxiliary requests 1-25.
- IV. The Board summoned the parties to oral proceedings, and set out its preliminary opinion in a communication under Article 15(1) RPBA.
- V. Oral proceedings were held before the Board, in the absence of the appellant as announced by letter dated 21 December 2022. During the oral proceedings, the respondent withdrew auxiliary request 1.
- VI. The requests of the parties are thus the following:
 - (a) The appellant requests that the decision under appeal be set aside and that the patent be revoked. In the event that the Board concludes that the main request does not comply with the requirements of the Convention, remittal to the opposition division is requested. The appellant furthermore requests

that the auxiliary requests filed on 4 September 2019 not be admitted into the proceedings. They also request reimbursement of the appeal fee on account of a substantial procedural violation during the first instance proceedings.

- (b) The respondent requests that the appeal be dismissed and the patent be maintained as granted (main request), or, alternatively, that the patent be maintained based on one of auxiliary requests 2-25 as filed with the reply to the appeal dated 27 July 2020.

VII. Claim 1 of the main request reads as follows:

"A shampoo composition comprising:

- (a) a premix, the premix comprising from 0.001% to 10%, by weight of the shampoo composition, of an anionic charged polyacrylate microcapsule; from 0.01% to 2%, by weight of the shampoo composition, of a cationic deposition polymer; and
(b) from 2% to 25%, by weight of the shampoo composition, of a deterative surfactant; and
(c) a carrier."

Claim 1 of auxiliary request 2 differs from claim 1 of the main request by the addition of the feature "wherein the anionic charged polyacrylate microcapsule comprises an anionic emulsifier and a polyacrylate microcapsule".

VIII. The following documents are relevant to the present decision:

D1: WO2010/079467 A2

D3: EP1407754 A1

D4: US2009/0256107 A1
D5: WO01/62376 A1
D7: US2004/0072720 A1
D9: US5372804
D15: Zeta potential measurement, Methods Mol Biol.,
2011; 697:63-70

IX. The appellant's arguments can be summarised as follows:

The opposition division's refusal to postpone the oral proceedings, despite the late filing of numerous auxiliary requests, amounted to a substantial procedural violation. Furthermore, all of these auxiliary requests filed on 4 September 2019 were not to be admitted.

Regarding the main request, the patent did not provide a sufficient disclosure over the breadth of the claims.

The subject-matter of claim 1 of the main request lacked novelty over the shampoo compositions of example 27 of D1.

If, however, the claimed subject-matter was found to differ from shampoo compositions of example 27 of D1 by the anionic charge of the microcapsules, starting from these compositions as closest prior art, the problem to be solved was the provision of alternative shampoo compositions. The claimed solution did not involve an inventive step.

Alternatively, starting from D3 as closest prior art, the objective problem to be solved was the provision of shampoo compositions comprising alternative microcapsules. Using an anionic charged polyacrylate

microcapsules instead of the aminoplast microcapsules of D3 did not involve an inventive step.

Since no assessment of the patentability of the auxiliary requests has been made by the opposition division, the case should be remitted to the opposition division for further prosecution if the grounds of opposition were found to prejudice the maintenance of the patent as granted.

X. The respondent's arguments can be summarised as follows:

No procedural violation had occurred in the proceedings before the opposition division.

Auxiliary request 2 had been admissibly filed in the proceedings before the opposition division, and was to be admitted into the appeal proceedings.

The appellant had not discharged the burden of proving that the patent lacked a sufficient disclosure.

Regarding novelty, example 27 of D1 provided no clear and unambiguous disclosure of shampoo formulations VII or VIII comprising the microcapsules of examples 1 or 2. It only disclosed shampoo formulations VII and VIII comprising the microcapsules of example 3. However these formulations neither comprised anionic charged polyacrylate microcapsules nor a premix thereof.

As to inventive step, starting from D1 as the closest prior art, the claimed subject-matter solved the problem of providing a shampoo composition that has improved olfactive results over time. This effect was

not suggested in the prior art. D3 did not render the claimed subject-matter obvious either.

Reasons for the Decision

1. Allegation of a substantial procedural violation

1.1 During the proceedings before the opposition division, the respondent submitted 19 auxiliary requests on 4 September 2019, i.e. shortly before the oral proceedings which took place on 13 September 2019. The opposition division rejected the appellant's request for postponement of the oral proceedings, and decided during the oral proceedings to reject the opposition.

Contrary to the appellant's position, the Board can identify no substantial procedural violation here. The decision to reject the opposition is only based on the patent as granted, on which the appellant had an opportunity to present their comments (Article 113(1) EPC). As indicated in point 6 of the appealed decision, a postponement of the oral proceedings could only have been justified if the late filed auxiliary requests had been under consideration. There is no indication that the opposition division did not contemplate to assess during the oral proceedings, depending on its findings regarding the main request, the possible need to adjourn the oral proceedings so as to give sufficient time to the appellant to analyse these late filed auxiliary requests.

1.2 The appellant further questions whether the second examiner of the opposition division also being the primary examiner of the examining division which

granted the patent, is compatible with Article 6 of the European Convention on Human Rights (ECHR).

However, the appellant did not substantiate this point nor provided any specific reason to suspect that the composition of the opposition division, which complies with the provision of Article 19(2) EPC, would infringe the right to a fair trial enshrined in Article 6 ECHR.

1.3 Accordingly, no substantial procedural violation occurred, and the request for reimbursement of the appeal fee on this basis is thus rejected.

2. Main request (patent as granted), novelty

2.1 The example compositions VII and VIII of example 27 of D1 (see pages 88-90) are shampoo formulations comprising:

- 0.30% fragrance microcapsules of example 3, comprising Celvol 540 PVA as emulsifier and having a negative zeta potential of -6 mV (see D1, method on page 84 and table 1 on page 86);

- 0.40% of a cationic deposition polymer (guar hydroxypropyltrimonium chloride, e.g. the Jaguar C17 mentioned in paragraph [0051] of the patent, see reference (1) on page 90 of D1),

- 13.5% of a deterative surfactant (sodium laureth sulfate, sodium lauryl sulfate and cocoamidopropyl betaine), and

- water as a carrier.

2.2 The opposition division found that the criteria of novelty were met because the polyacrylate microcapsules of example 3 of D1 did not qualify as anionic charged polyacrylate microcapsules in the sense of claim 1 of the main request. The Board does not concur.

2.2.1 The patent does not define the expression "anionic charged polyacrylate microcapsule". The respondent conceded that claim 1 of the main request does not limit the microcapsules to those comprising an anionic emulsifier, which is only a feature in dependent claim 2. It is also not debated that the zeta potential may be used to characterise a microcapsule as anionic or non-ionic. However, no threshold in zeta potential is given in the patent for differentiating anionic and non-ionic microcapsules. At most, in example 1 of the patent, microcapsules having a much lower zeta potential of -0.5 mV are referred to as non-ionic (see paragraph [0096]). There is thus no basis for the respondent's contention that a zeta potential of -6 mV should be considered too small for the microcapsule to be regarded as anionic charged.

2.2.2 The respondent did not convincingly show either that the expression "anionic charged polyacrylate microcapsule" had a generally accepted definition in the art. Neither D15, an abstract relating to nanoparticles, nor D1 itself (see page 27, "For Non-Ionic Capsule Type (Polyvinyl Alcohol emulsifier)") can be taken into account for the interpretation of claim 1 of the patent, because these documents do not represent evidence of the common general knowledge.

2.2.3 Considering the lack of clear definition of an anionic charged polyacrylate microcapsule, this expression must be given its broadest technically sensible meaning. On

this basis, the microcapsules of example 3 of D1, having a negative zeta potential of -6 mV, are regarded as having an anionic charge.

2.2.4 The respondent cited claim 1 of D1, which mentions microcapsules having a zeta potential of -5 mV or greater and having adherence to anionic surfaces. Even if this teaching of D1 were to apply to the microcapsules of example 3 having a zeta potential of -6 mV, this argument would not change the Board's conclusion. It follows from the above reasoning that there is no basis for reading the expression "anionic charged polyacrylate microcapsule" in a narrow way, e.g. such that it would exclude microcapsules with adherence to anionic surfaces. The Board additionally stresses that, for the question of novelty of claim 1 of the main request, the relevant issue is not whether D1 regards the microcapsules of its example 3 as anionic charged, but whether claim 1 of the main request allows for interpretations whereby these microcapsules of D1 can be regarded as anionic charged. As indicated above, this is the case here in view of their negative zeta potential.

2.2.5 Lastly, the respondent submitted that the value of -6 mV given in example 3 of D1 may be the result of the measurement method used therein, and contended that, in view of these doubts as to the disclosure of D1, novelty could not be denied.

However, claim 1 of the main request is neither limited to a given zeta potential value nor to a zeta potential measurement method. In fact, the doubts mentioned by the respondent do not pertain to the disclosure of D1, but instead stem for the lack of clear definition of "anionic charged polyacrylate microcapsule" used in

claim 1 of the patent. Therefore, this argument must fail.

- 2.3 The respondent additionally contended that the feature "premix" of claim 1 establishes novelty over D1. According to the respondent, premixing the anionic microcapsules and the cationic deposition polymer before addition to the other components of the shampoo composition inevitably results in a strong polyelectrolyte interaction and the formation of microstructures with high viscoelasticity, which remain intact even upon dilution during use and display adhesion to the keratinaceous hair surface (see paragraphs [0020] and [0074] of the patent).

However it is not demonstrated that premixing the anionic microcapsules and the cationic deposition polymer inevitably leads to any difference in the shampoo composition, as compared with their separate addition to the composition as in D1.

- 2.4 In conclusion, the subject-matter of claim 1 of the main request lacks novelty over D1.

3. Remittal

The appellant expressed the view that, if the main request is found not to be allowable, the case should be remitted to the opposition division for further prosecution, because no assessment of the patentability of the auxiliary requests has been made by the opposition division.

In the Board's opinion, all the essential grounds have been covered by the decision under appeal in respect of the main request. Furthermore, as indicated above (see

1.), no fundamental deficiencies are apparent in the proceedings before the opposition division.

Accordingly, no special reasons are present, in the sense of Article 11 RPBA 2020, for remitting the case to the opposition division.

4. Auxiliary request 2

4.1 Following the withdrawal of auxiliary request 1 during the oral proceedings before the Board, auxiliary request 2 is the respondent's highest ranking auxiliary request.

4.2 There is no objection to the admittance of auxiliary requests 2. Even though it does not belong to the requests on which the appealed decision (to reject the opposition) is based, auxiliary request 2 had been filed in the proceedings before the opposition division on 12 July 2019, well before the final date set under Rule 116(1) EPC by the opposition division, and maintained in the respondent's letter dated 4 September 2019. Accordingly, this request is not to be seen as an amendment to the respondent's case, and is considered in the appeal proceedings, pursuant to Article 12(4) RPBA 2020.

4.3 Auxiliary request 2 results from the incorporation, into claim 1 as granted, of the feature of dependent claim 2 as granted, which is identical to claim 2 as filed, namely that "the anionic charged polyacrylate microcapsule comprises an anionic emulsifier and a polyacrylate microcapsule". The amendment was not objected to by the appellant, nor does the Board see any issue under Articles 84, 123(2) or 123(3) EPC.

4.4 Novelty

- 4.4.1 The example compositions VII and VIII of example 27 of D1 comprise the fragrance microcapsules of example 3, where the non-ionic emulsifier Celvol 540 PVA is used. The appellant did not present any argument that this component, or any other component of the compositions VII and VIII, would qualify as anionic emulsifier comprised in the microcapsules. The Board cannot identify such a teaching in D1 either.
- 4.4.2 The appellant additionally raised an objection of lack of novelty over example 27 of D1 when referring to the microcapsules of examples 1 and 2.

Example 27 of D1 generally relates to shampoo compositions including the microcapsule slurry of examples 1 through 24 (see page 88), and describes specific compositions comprising microcapsules according to example 3 (see the example compositions I-VIII).

However, the appellant's objection of lack of novelty is actually based on a combination of the specific microcapsules of examples 1 or 2 with the specific example compositions VII and VIII of example 27. The Board does not share the appellant's position that such a combination is directly and unambiguously derivable from example 27 of D1.

Furthermore, the opposition division reasoned that D1 referred to an "appropriate amount of microcapsule slurry of examples 1 through 24" which was not clearly the same as that used for the microcapsules of example 3 in the "typical composition" of example 27 (see page 88, lines 5 and 9; table). The Board concurs.

Accordingly, the appellant's objection of lack of novelty over D1 is not convincing. Auxiliary request 2 meets the requirements of Article 54 EPC.

4.5 Sufficiency of disclosure

- 4.5.1 According to the appellant, the patent does not teach how to prepare microcapsules the core of which is only partially surrounded by a wall material, as mentioned in paragraph [0027] of the description.

In the Board's opinion, the expression "microcapsule" of claim 1 does not allow for matters in which the core is not fully encapsulated by at least one wall material. The Board concurs with the respondent that microcapsules can be covered with differing wall materials. Furthermore, in the Board's opinion, the appellant's hypothetical non-working composition, wherein only half of the core is surrounded by a wall material such that little if any perfume will be encapsulated, would readily be considered as not technically feasible by the skilled reader. Thus, the compositions to which the appellant refers do not represent embodiments of the microcapsule compositions of claim 1 as read by the person skilled in the art. Accordingly, the appellant's objection is not convincing.

- 4.5.2 The appellant also contends that the patent does not teach how to obtain an anionic charged polyacrylate microcapsule across the broad range of wall materials considered in paragraph [0028], such as melamine-formaldehyde or modified cellulose.

However, claim 1 mandates that the microcapsules be made of polyacrylate, and thus does not cover

microcapsules made solely of such alternative wall materials. It is not questioned that the patent enables the skilled person to prepare polyacrylate microcapsules. Taking additionally into account the common general knowledge regarding the preparation of microcapsules, and the lack of substantiation for the doubts raised by the appellant, the Board concludes that the patent is sufficiently disclosed in this respect.

- 4.5.3 The appellant further objects that the mono- and dialkyl chain cationic surfactants mentioned in paragraph [0050] are not polymers, that they do not result in a viscous mixture and are not suitable as cationic deposition polymer.

The Board considers that, if mono- and dialkyl chain cationic surfactants are not polymers, then they are not covered by the expression "cationic deposition polymer" and cannot lead to a finding of insufficiency of disclosure for the claimed invention. The mention of such compounds in paragraph [0050] is at most an issue of clarity or support, but not of sufficiency of disclosure.

- 4.5.4 The appellant did not substantiate why claim 1 would be so broad that the patent does not make it plausible that the invention can be performed over the full scope of the claim, i.e. that the skilled person would be unable to prepare shampoo composition with the anionic charged polyacrylate microcapsules, cationic deposition polymers and detergent surfactants covered by claim 1. The Board furthermore concurs with the respondent that cationic deposition polymers are commonly known in the field of shampoos.

4.5.5 With respect to the main request, the appellant pointed out that, according to paragraphs [0024] and [0059] of the patent, the anionic emulsifier and the deterative surfactant may be one and same compound. However, claim 1 of auxiliary request 2 mandates that the anionic emulsifier be comprised in the microcapsules, which is not required for the deterative surfactant. The appellant did not explain how, in the context of auxiliary request 2, a given compound could still have overlapping functions and how this would lead to a finding of insufficiency of disclosure.

4.5.6 In conclusion, the criteria of sufficiency of disclosure are met.

4.6 Inventive step

4.6.1 Starting from the shampoo compositions VII and VIII of example 27 of D1, made with microcapsules comprising the non-ionic emulsifier Celvol 540, the subject-matter of claim 1 of auxiliary request 2 differs by the use of an anionic charged polyacrylate microcapsule comprising an anionic emulsifier (see 4.4.1 above).

4.6.2 The opposition division accepted that the claimed invention led to improved deposition of microcapsules onto hair and improved olfactive results over time. The Board concurs, for the following reasons.

Example 9 of the patent compares:

- shampoos according to claim 1 (see examples 9I, J and L on page 16 of the patent), including 3.33 g of a premix (see paragraph [0108]) of the anionic charged microcapsules of examples 2, 3 and 5 comprising the anionic emulsifier Colloid 351 and having a zeta potential of -60 mV, with

- comparable shampoos (see example 9H) containing 3.33 g of a premix of the non-ionic microcapsules of example 1 comprising the non-ionic emulsifier Celvol 540.

This comparison credibly shows that improved olfactive results over time are associated with the differentiating feature, namely the use of anionic microcapsules comprising an anionic emulsifier.

- 4.6.3 The appellant contests that the improvement is obtained across the full scope of the claims, firstly on account that the examples are limited to polyacrylate microcapsules made from the same wall materials and using the same anionic emulsifier (Colloid 351). The Board does not share this view. The patent explains that the formation of microstructures between the polyacrylate microcapsules containing anionic emulsifiers and the cationic deposition polymers accounts for the strong adhesion to keratinaceous hair surfaces (see paragraphs [0020] and [0042]). Considering this proposed mechanism, based on the electrostatic interaction with the cationic deposition polymer in the premix, there is no reason to doubt that the effect observed for the emulsifier Colloid 351 would be exhibited by other anionic emulsifiers. There is also no support for the appellant's contention that the observed effect could not be extrapolated to other polyacrylate wall materials.

The appellant further relied on a comparison of examples 10B and 10G of the patent. However, this comparison of shampoo compositions, which both contain anionic microcapsules but differ by the presence or absence of a cationic deposition polymer, teaches nothing about the effect of the differentiating feature

over D1, which is the use of anionic microcapsules comprising an anionic emulsifier.

- 4.6.4 Thus the technical problem to be solved is the provision of a shampoo composition that has improved olfactive results over time.
- 4.6.5 The Board agrees with the respondent that no prior art suggests the use of microcapsules comprising an anionic emulsifier and polyacrylate microcapsules for the purpose of improving the olfactive results over the time.

The use of anionic polyacrylate microcapsules containing an anionic emulsifier in shampoos is considered in D1 (see e.g. the anionic microcapsules of examples 1 and 2, which may be used in example 27). However, D1 does not teach that the use of such anionic microcapsules may lead to any improvement in olfactive results.

None of the other documents cited by the appellant show anionic microcapsules containing an anionic emulsifier either (see D3, example 5; D4, examples 13 and B13; D5, examples 1 and 2; D7, examples 2, 4 and 5; D9, examples 2A-2C). In particular, example 2 of D7 does not show the use of any anionic emulsifier and explicitly identifies the microcapsule prepared therein as uncharged.

The skilled person finds accordingly no incentive in the prior art to consider the use of anionic microcapsules containing an anionic emulsifier as a solution to the above technical problem.

4.6.6 The appellant additionally raised an objection of lack of inventive step starting from D3.

D3 (see examples 2 and 4) discloses a shampoo prepared by mixing fragrance-containing microcapsules with a cationic polymer, and then mixing the resulting cationic polymer coated microcapsules with an unspecified model shampoo base.

Thus D3 does not come closer to the claimed invention, since it neither discloses the use of anionic charged polyacrylate microcapsules comprising an anionic emulsifier, nor the presence of 2-25% by weight of deterative surfactant. Hence, for the same reasons as when starting from D1 (see 4.6.1-4.6.5 above), at least the differentiating feature of using an anionic charged polyacrylate microcapsule comprising an anionic emulsifier, and its associated technical effect, lead to the conclusion that the claimed subject-matter involves an inventive step.

Accordingly, auxiliary request 2 meets the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent in amended form on the basis of auxiliary request 2 filed with letter dated 27 July 2020 and a description to be adapted thereto.
3. The appellant's request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:



B. Atienza Vivancos

D. Boulois

Decision electronically authenticated