Decision of 21 November 2002

Case Number: T 0118/99 - 3.3.6
Application Number: 90200622.0
Publication Number: 0390251
IPC: C11D 11/00

Language of the proceedings: EN

Title of invention: Detergent compositions and process for preparing them

Patentee: UNILEVER N.V., et al

Opponent: The Procter & Gamble Company

Headword: Bulk density/UNILEVER

Relevant legal provisions: EPC Art. 54(1)(2)(3), 87(1), 89, 100(b), 123(2)

Keyword: "Main request, second, third and fifth auxiliary requests - novelty (no)"
"First and fourth auxiliary requests - added subject-matter (yes)"
"Sixth auxiliary request - admissibility (no) - late-filing and lack of clarity"

Decisions cited: T 0002/81, T 0153/85, T 0260/85, T 0406/86, T 0378/97, T 1071/97
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DECISION
of the Technical Board of Appeal 3.3.6
of 21 November 2002

Appellant: The Procter & Gamble Company
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Composition of the Board:
Chairman: P. Krasa
Members: G. N. C. Raths
Summary of Facts and Submissions

I. This appeal is from an interlocutory decision of the Opposition Division to maintain European patent 0 390 251, claiming priority of 30 March 1989 from GB patent application No. 8 907 187, in amended form. In a notice of opposition, based on lack of sufficiency of disclosure, lack of novelty and inventive step, the following documents were cited inter alia:

(2) Derwent Abstract and English translation of JP-A-6106990


II. In its decision the Opposition Division found that the Claims of the proprietors' amended second request met the requirements of the EPC, but rejected the proprietor's main request and the auxiliary requests 1 to 4 because of lack of sufficiency of disclosure, in particular with respect to Claim 12 which was directed to a process, the products of which were defined by particle porosity. Further, the Opposition Division rejected the amended main request because of lack of novelty and the amended first auxiliary request 1 because of violation of Article 123(2) EPC.

Claims 1 and 12 of the main request filed with the grounds of appeal were identical to Claims 1 and 12 as granted and read as follows:

"1. Process for the continuous preparation of a granular detergent composition or component having a bulk density of at least 650 g/l, which comprises the steps of treating a particulate starting material
(i) in a first step in a high-speed mixer/densifier, the mean residence time being from 5-30 seconds;
(ii) in a second step in a moderate-speed granulat/densifier, whereby it is brought into, or maintained in, a deformable state, the mean residence time being from 1-10 minutes and
(iii) in a final step in drying and/or cooling apparatus,
wherein 0.1 to 40 % by weight of a powder is added in the second step or between the first and the second step.

12. Process according to Claims 1-11, wherein the particle porosity of the final granular detergent product is less than 10%, preferably less than 5%.

III. Both the proprietors (herein "the appellants") and the opponent (herein "the respondent"), lodged appeals against the decision of the Opposition Division.

1. The appellants argued in essence as follows:

   The mercury porosimetry method should be recognized as a valid method, and therefore Claim 12 should be allowable under Article 100(b) EPC.

   The amendments to their requests were allowable under Article 123 EPC, since they found their support in the priority document; some features claimed in the European patent application, such as the upper values of a time range, did not need to be explicitly mentioned in the prior application in order to be entitled to the priority date. Therefore, the claimed subject-
matter was also novel.

2. The respondent argued in essence as follows:

The amendments violated Article 123(2) EPC, since they found no basis in the application as filed.

The scope of Claim 1 was so broad that its subject-matter was anticipated by document (16).

Further, the claimed subject-matter lacked an inventive step over documents (2) and (32a) EP-A-0 340 013,

the later document having been filed with its letter dated 18 October 2002.

IV. During oral proceedings which took place on 21 November 2002 the appellants replaced the auxiliary requests on file by the following 6 auxiliary requests:

First auxiliary request

Claim 1 of the first auxiliary request differs from Claim 1 of the main request in that "the mean residence time being from 1-10 minutes" was replaced by "the mean residence time being from 1-6 minutes" in the second step (ii).

Second auxiliary request

Claim 1 of the second auxiliary request differs from Claim 1 of the main request in that "the mean residence time being from 1-10 minutes" was replaced by "the mean..."
residence time being from 1-5 minutes" in the second step (ii).

Third auxiliary request

Claim 1 of the third auxiliary request differs from Claim 1 of the main request in that the passage "comprising from 10 to 70 % by weight of detergency builder" was inserted between "a particulate starting material" and "(i)".

Fourth auxiliary request

Claim 1 of the fourth auxiliary request differs from Claim 1 of the third auxiliary request in that "the mean residence time of 1 to 10 minutes" was replaced by "the mean residence time of 1 to 6 minutes".

Fifth auxiliary request

Claim 1 of the fifth auxiliary request differs from Claim 1 of the fourth auxiliary request in that "the mean residence time of 1 to 6 minutes" was replaced by "the mean residence time of 1 to 5 minutes".

Sixth auxiliary request

Claim 1 of the sixth auxiliary request differs from Claim 1 of the main request in that at the end of the claim the following passage was added "with the proviso that the process is not a process for the continuous preparation of a granular detergent composition or component having a bulk density of at least 550 g/l, which comprises
(i) feeding a liquid acid precursor of an anionic surfactant, a solid water-soluble alkaline inorganic material and optionally other materials in a high-speed mixer/densifier, the mean residence time being from 5-30 seconds;

(ii) subsequently treating the granular detergent material in a moderate-speed granulator/densifier, whereby it is brought into or maintained in a deformable state, the mean residence time being from about 1-10, preferably from 2-5 minutes, and finally

(iii) drying and/or cooling the product".

V. The appellants requested that the opponent's appeal be dismissed and that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or alternatively on the basis of the auxiliary requests 1 to 5 filed during the oral proceedings or that the disclaimer in the sixth auxiliary request be the subject of a question to be referred to the Enlarged Board of Appeal as set out in their letter of 27 September 2002.

The respondent requested that the patentees' appeal be dismissed and that the patent be revoked.

VI. At the end of the oral proceedings the Chairman announced the decision of the Board.

Reasons for the Decision

1. Main request
1.1 Article 100(b) EPC

Claim 12, depending on Claims 1 to 11, is directed to a process wherein the particle porosity of the final granular product is less than 10%. The Board, having commented in extenso on the mercury porosity measurement method in case T 378/97 (not published in the OJ EPO), is satisfied that Claim 12 meets the requirements of Article 100(b) EPC. In summary, mercury porosimetry was suitable for determining the porosity of commercial detergent compositions. Since at the oral proceedings the respondent did not maintain its objection raised in its letter of 21 May 1999 (page 4, paragraph 3), no further reasons need be given.

1.2 Priority (Articles 87(1) and 89 EPC)

Claim 1 of the patent in suit is directed to a process comprising treating a particulate starting material, inter alia, in a second step in a moderate-speed granulator/densifier, the mean residence time being from 1 to 10 minutes.

Claim 1 of the priority document discloses a mean residence time of 1 to 6 minutes in the moderate-speed granulator densifier. The priority document did not disclose the range of 1 to 10 minutes. Therefore, the requirement that the invention disclosed in the priority document and the invention claimed in the European Patent application are the same, is not fulfilled (Article 87(1) EPC). It follows that Claim 1 is not entitled to the claimed priority date ie 30 March 1989, but only to the filing date, ie 16 March 1990 (Article 89 EPC).
1.3 Novelty

1.3.1 Claim 1 of document (16) is directed to a process comprising "feeding a liquid acid precursor of an anionic surfactant, a solid water-soluble alkaline inorganic material and optionally other materials in a first step in a high-speed mixer/densifier, the mean residence time being from 5-30 seconds; (ii) in a second step in a moderate-speed granulator/densifier, whereby it is brought into or maintained in a deformable state, the mean residence time being from 1-10 minutes".

The respondent interpreted the process step "treating a particulate starting material" according to the patent in suit as comprising "feeding a liquid acid precursor of an anionic surfactant, a solid water-soluble alkaline inorganic material".

The appellants did not contest this line of reasoning. Further, the respondent objected that Claim 1 of the patent in suit lacked novelty over document (16), which disclosed mean residence times in the high-speed mixer and in the moderate-speed granulator-densifier being identical to those of Claim 1.

1.3.2 Document (16), claiming the priority of 29 September 1989, was published on 3 April 1991, ie after the filing date of the patent in suit (16 March 1990). Document (16) is thus considered as comprised in the state of the art pursuant to Article 54(3) EPC.

Since the features of the detergents according to document (16) conform completely to those of the invention, it follows that document (16) is prejudicial
to the patent in suit. The subject-matter of Claim 1 of the patent in suit is anticipated by Claim 1 of document (16) and, therefore, does not meet the requirements of Articles 52(1) and 54(1) EPC.

The main request is not allowable.

2. First auxiliary request

Claim 1 of the first auxiliary request differs from Claim 1 of the main request in that "the mean residence time being from 1-10 minutes" was replaced by "the mean residence time being from 1-6 minutes" in the second step (ii), this latter range not being disclosed in the application as filed. Hence, the subject-matter of Claim 1 extends beyond the content of the application as filed.

The appellants were of the opinion that an amendment finding its basis in the priority document of the patent in suit would not violate Article 123(2) EPC. They argued the range of 1 to 6 minutes could be regarded as disclaiming a sub-range of more than 6 and up to 10 from the range of 1 to 10 minutes (letter of 21 May 1999, page 5, paragraphs 2 and 3).

Pursuant to Article 123(2) EPC, it is the application as filed, and not the priority document, which serves as a basis for supporting amendments. The content of the application as filed does not include the content of the priority document (see T 260/85, OJ EPO 1989, 105).

Thus, Claim 1 violates Article 123(2) EPC; therefore, the first auxiliary request is not allowable.
3. **Second auxiliary request**

3.1 Article 123(2) EPC

Claim 1 of the second auxiliary request differs from Claim 1 of the main request in that "the mean residence time being from 1-10 minutes" was replaced by "the mean residence time being from 1-5 minutes" in the second step (ii).

Since the application as filed disclosed a range of 1 to 10 minutes and a range of 2 to 5 minutes (page 9, lines 6 to 9), it is allowable to reduce the scope of the broad range of 1 to 10 minutes to 1 to 5 minutes, since both end values of 1 and 5 were disclosed (see T 2/81, OJ EPO 1982, 394).

The subject-matter of Claim 1 meets the requirements of Article 123(2) EPC.

3.2 Priority (Articles 87(1) and 89 EPC)

Claim 1 of the patent in suit is directed to a process comprising treating a particulate starting material, *inter alia*, in a second step in a moderate-speed granulator/densifier, the mean residence time being from 1 to 5 minutes.

The priority document disclosed a range of 1 to 6 minutes. During the oral proceedings before the Board, the appellants argued that the range of 1 to 5 minutes was entitled to the priority date since a reduced scope of 1 to 5 minutes does not change the nature of the invention as disclosed in the priority document. Consequently, document (16) could not be considered as
state of the art under Article 54(3) EPC as regards this request.

The Board does not agree. The application as filed disclosed a mean residence time of 1 to 10 minutes, and preferably from 2 to 5 minutes (page 9, lines 5 to 9). Therefore, it was implicitly stressed that a difference of one unit, i.e. one minute, which is the difference of the respective lower limits of the general broader range of the mean residence time and the preferred range of the mean residence time is technically relevant for the claimed process.

It follows that for the technical process, a mean residence time of 1 to 5 minutes is technically different from a mean residence time of 1 to 6 minutes. The features being different, there is no identity of invention. Consequently, the requirements of Article 87(1) EPC are not fulfilled. Hence, the feature "mean residence time of 1 to 5 minutes" is not entitled to the priority date (Article 89 EPC).

3.3 Novelty

In view of the conclusion reached under 3.2, document (16) is to be considered as state of the art under Article 54(3) EPC. Since this document disclosed the ranges "1 to 10 minutes" and "2 to 5 minutes", the sub-range of "1 to 5" is also disclosed for the same reasons as given in point 3.1 above in relation to the application as filed. There was no dispute over the identity of the other features of the claimed subject-matter with those of document (16).

Therefore, the subject-matter of Claim 1 is anticipated
by the subject-matter of Claim 1 of document (16).

Claim 1 does not meet the requirements of Articles 52(1) and 54(1) EPC, and therefore, the second auxiliary request is not allowable.

4. Third auxiliary request

Claim 1 of the third auxiliary request differs from Claim 1 of the main request in that the passage "comprising from 10 to 70 % by weight of detergency builder" was inserted between "a particulate starting material" and "(i)".

Example 2 of document (16) exemplifies the process claimed in this document. During oral proceedings the appellants admitted that the builder concentration of this example 2 would fall within the claimed range of the detergency builder concentration of Claim 1. Hence this feature is not appropriate to render the subject-matter of Claim 1 novel. The remaining features being identical to Claim 1 of the main request, the reasoning under 1.3.1 and 1.3.2 applies mutatis mutandis to the third auxiliary request.

Claim 1 does not meet the requirements of Articles 52(1) and 54(1) EPC, and therefore, the third auxiliary request is not allowable.

5. Fourth auxiliary request

Claim 1 contains the residence time of 1 to 6 minutes. Therefore the comments under point 2 apply mutatis mutandis to Claim 1 of the fourth auxiliary request.
Claim 1 violates Article 123(2) EPC, and therefore, the fourth auxiliary request is not allowable.

6. **Fifth auxiliary request**

Claim 1 contains the mean residence time of 1 to 5 minutes. Therefore the comments under point 3 apply *mutatis mutandis* to Claim 1 of the fifth auxiliary request.

Claim 1 is not novel and thus does not meet the requirements of Articles 52(1) and 54(1) EPC.

Thus, the fifth auxiliary request is not allowable.

7. **Sixth auxiliary request**

7.1 The sixth auxiliary request as filed during the oral proceedings before the Board contained the text of Claim 1 as granted with the addition at the end of the claim of the following passage "with the proviso that a liquid acid precursor of an anionic surfactant is not fed into the high-speed mixer-densifier". In the oral proceedings the respondent observed that such a disclaimer would not be allowable as it did not find a proper basis in document (16). The appellants acknowledged this and asked for an adjournment to prepare a new sixth auxiliary request. The Board, when exercising its discretion in favour of allowing this request emphasised that - in view of the very late stage of the proceedings - this was the very last possibility for the appellants to file an amended request.

7.2 The new sixth auxiliary request then submitted by the
appellants and replacing the previous one, contained a disclaimer (see IV above) of the entire Claim 1 (the only independent claim) of document (16).

The subject-matter of Claim 1 of document (16) being disclaimed, the disclaimer also encompassed the subject-matter of dependent Claim 6 which reads as follows: "Process...wherein 0.1 to 40% by weight of a powder is added in the second step or between the first and the second step." This process step was also part of Claim 1 of the patent in suit.

7.3 Normally alternative sets of claims should be filed with the grounds of appeal, or as soon as possible thereafter. If on the one hand a Board, at a very late stage of the proceedings, exercises its discretion in favour of allowing an appellant to submit an amended request thereby deviating from the above-mentioned general principle, the Board on the other hand requires and expects with respect to such late amendments a request without formal or substantive deficiencies so that no further delay of the proceedings is caused (see T 153/85, OJ EPO 1988, 1, reasons No. 2.1, second paragraph, headnote 2; T 406/86, OJ EPO 1989, 302, reasons No. 3.4; T 1071/97, not published in OJ EPO, see reasons No. 2.2 referring also to Articles 11(1) and (3) of the Rules of Procedure of the Boards of Appeal (RPBA) and the "Guidance for parties to appeal proceedings", issued by the EPO and published in the Official Journal, OJ EPO 1996, 342).

7.4 Late filed amendments with such deficiencies may therefore be refused.

7.5 In the circumstances of this case, the Board found that
the preconditions of admitting the new sixth auxiliary request were not fulfilled.

7.5.1 The appellants did not contest (see 1.3.1) that "treating a particulate starting material" (wording found in Claim 1 of the patent in suit) comprised "feeding a liquid acid precursor of an anionic surfactant, a solid water-soluble alkaline inorganic material into a high-speed mixer/densifier..." (wording found in Claim 1 of document (16), now in the disclaimer). The overlap between the original subject-matter of Claim 1 and the subject-matter of the disclaimer is so far reaching that almost the whole content of the original Claim 1 is now disclaimed.

7.5.2 It follows that the remainder of Claim 1 was reduced to embodiments of a process "treating a particulate starting material" being different from the treatment comprising an acid precursor and an inorganic material while it should be kept in mind that "treating a particulate starting material" comprised the treatment with an acid precursor and an organic material (see 7.5.1). Since however in both the patent in suit (page 3, lines 29 and 30) and document (16) (page 3, lines 40 and 41) "the starting material may be prepared by any suitable method such as spray-drying or dry-mixing", the scope of definition of the process still covered by Claim 1 was, if not practically void, reduced to such an extent that it became questionable whether the features of the remaining processes could be identified at all. To extract viable ways of running the process could lead to several speculative interpretations of Claim 1. If however Claim 1 does not allow the matter for which protection is sought to be recognised directly and unambiguously, then there is a
lack of clarity which contravenes Article 84 EPC. The complexity of the technical issue raised by the manner Claim 1 was drafted was such that neither the Board nor the respondent could be expected to deal with it without adjournment of the proceedings. Removal of this deficiency would have necessitated a further amendment of Claim 1.

For these reasons, the Board did not admit the new sixth auxiliary request.

7.6 Since the new auxiliary request 6 was not admissible, there was no basis for the appellants' proposed referral of a question to the Enlarged Board of Appeal.

Order

For these reasons it is decided that:

1. The sixth auxiliary request is not admitted.

2. The decision under appeal is set aside.

3. The patent is revoked.

The Registrar: The Chairman:

G. Rauh P. Krasa