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Datasheet for the decision of 29 May 2009

Case Number: T 1225/07 - 3.3.06

Application Number: 00941566.2

Publication Number: 1187904

IPC: C11D 17/06

Language of the proceedings: EN

Title of invention:
Process for making a granular detergent composition

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponent:
Henkel AG & Co. KGaA

Headword:
Narrow particle size distribution/PROCTER & GAMBLE

Relevant legal provisions:
EPC Art. 83

Keyword:
"Sufficiency of disclosure (all requests): no - teaching not leading necessarily and directly toward success through the evaluation of initial failures"

Decisions cited:
T 0713/98

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1225/07 - 3.3.06

D E C I S I O N
of the Technical Board of Appeal 3.3.06
of 29 May 2009

Appellant: (Patent Proprietor) THE PROCTER & GAMBLE COMPANY

Representative: Hucker, Charlotte Jane
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Respondent: (Opponent) Henkel AG & Co. KGaA
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Representative: -

Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 30 May 2007 revoking European patent No. 1187904 pursuant to Article 102(1) EPC 1973.**

Composition of the Board:

Chairman: P.-P. Bracke
Members: L. Li Voti
J. Geschwind

Summary of Facts and Submissions

I. The present appeal is from the decision of the Opposition Division to revoke the European patent no. 1 187 904 concerning a process for making a granular detergent composition.

II. In its notice of opposition the Opponent sought revocation of the patent on the grounds of Articles 100(a) and (b) EPC.

III. In its decision, the Opposition Division found with regard to then pending main request *inter alia* that

- the only process step indicated in claim 1 did not lead compulsorily to the particle size distribution required for the final product; however, all the examples contained in the patent in suit described a process involving a sieving step; therefore, it was clear that some sieving had to be carried out in order to arrive at a product having the required particle size distribution;

- sieving was a well known step for achieving a specific particle size distribution; therefore, the skilled person would have been able to carry out the claimed invention by using his common knowledge;

- moreover, even though claim 1 did not specify sieving as an essential process step, this deficiency amounted only to a lack of compliance

with Article 84 EPC which was not a ground for opposition;

– therefore, the invention was sufficiently disclosed;

– however, the subject-matter of claim 1 did not involve an inventive step.

IV. An appeal was filed against this decision by the Patent Proprietor (Appellant).

The Appellant submitted with the statement of the grounds of appeal three sets of claims according to the main request and the first and second auxiliary requests, respectively.

With the letter of 29 April 2009 the Appellant submitted sets of claims according to the third to fifth auxiliary requests.

Oral proceedings were held before the Board on 29 May 2009.

The Appellant withdrew at the oral proceedings its first auxiliary request. All other requests were maintained without any renumbering.

V. The set of 12 claims according to the **main request** contains an independent claim 1 reading as follows:

"1. A process for making a granular detergent composition comprising the steps of mixing dry agglomerates and spray dried granules in at least one

mixer selected from the group consisting of a low-speed mixer, a moderate-speed mixer, a high-speed mixer, and combinations of mixers thereof, to form particles, wherein the granular detergent composition comprises at least 95% by weight of particles having a geometric mean particle diameter of from 500 microns to 1500 microns with a geometric standard deviation of from 1 to 1.4".

Claim 1 according to the **second auxiliary request** differs from that according to the main request only insofar as it comprises the wording "and subsequently sieving these particles," after "...to form particles,".

Claim 1 according to the **third auxiliary request** differs from that according to the main request only insofar as it comprises at the end the additional wording ", and the bulk density of the particles is in the range from 550 g/l to 850 g/l".

Claim 1 according to the **fourth auxiliary request** differs from that according to the third auxiliary request insofar as it comprises at the end the additional wording ", the process further comprising the step of conditioning the resultant particles in at least one conditioning apparatus, wherein the step of conditioning includes at least one fluid bed granulator, and wherein the fluid bed granulator has a mean residence time from 30 seconds to 20 minutes" between "with a geometric standard deviation of from 1 to 1.4," and "and the bulk density of the particles is in the range from 550 g/l to 850 g/l".

Claim 1 according to **the fifth auxiliary request** differs from that according to the third auxiliary request only insofar as it comprises the wording "and subsequently sieving these particles," after "...to form particles,".

VI. As regards sufficiency of disclosure the Respondent submitted in writing and orally *inter alia* that

– it had not been disputed that a simple mixing step was not sufficient for obtaining the selected particle size distribution; however, the application indicated only generic process steps which were not specific for achieving such a particle size distribution;

– the mentioned conditioning steps such as sieving were indicated to be optional; moreover, the application did not contain any indication at which point of the process the conditioning steps had to be carried out and how often;

– the application did not teach to sieve the agglomerated product in a way which was different from that taught in the prior art;

– furthermore, if sieving was considered to be part of the process of the invention, the process steps preceding sieving would have to lead to a distribution of particles which allows to obtain the required particle size distribution of claim 1 after sieving; therefore, a generic sieving step might be insufficient for obtaining the selected particle size distribution;

– in this respect the application did not teach how to carry out the process steps before sieving and the sieving itself in order to obtain the required particle size distribution;

– therefore, the application lacked sufficiency of disclosure.

VII. The Appellant submitted orally *inter alia* that

– all the objections raised by the Respondent as to the sufficiency of disclosure concerned the clarity of the claims and therefore were not a ground for opposition;

– in particular, the application described how to carry out the agglomeration steps of the claimed process and that conditioning steps such as sieving could be carried out; all the examples of the patent in suit disclosed processes involving a sieving step after agglomeration;

– at the priority date of the patent in suit, it was known to the skilled person how to perform different degrees of sieving and how to arrive therewith at a specific particle size distribution;

– moreover, paragraph 24 of the patent in suit specified that the particle size distribution of the agglomerated particles could be preferably measured by dry sieving;

– therefore, even though there might have been different methods for arriving at the required particle size distribution, it would have been clear to the skilled person by reading the application that one way for obtaining a product having the required particle size distribution was to apply a sieving step to the product of the preceding agglomeration steps. Since sieving was a technique well known to the skilled person, he would have not required any inventive skill for carrying out the invention;

– therefore, the invention was sufficiently disclosed.

VIII. The Appellant requests that the decision under appeal be set aside and that the patent be maintained on the basis of the claims according to the main request or, in the alternative, on the basis of the claims according to the second auxiliary request, both of them submitted with the statement of the grounds of appeal, or on the basis of any of the sets of claims according to the third to fifth auxiliary requests, submitted with the letter of 29 April 2009.

IX. The Respondent requests that the appeal be dismissed.

Reasons for the Decision

1. Main request

1.1 Sufficiency of disclosure

1.1.1 The invention of claim 1 is a process for making a granular detergent composition comprising as essential process step only the mixing of dry agglomerates and spray dried granules in at least one mixer selected from the group consisting of a low-speed mixer, a moderate-speed mixer, a high-speed mixer, and combinations of mixers thereof, to form particles. Moreover, the particle size distribution of the granular detergent composition made must be such that for at least 95% by weight of the particles the geometric mean particle diameter is within the range of from 500 microns to 1500 microns with a geometric standard deviation of from 1 to 1.4 (see point V above).

According to the Appellant the invention is sufficiently disclosed since the application indicates sieving as an optional conditioning step, it specifies that the particle size distribution of the obtained product can be preferably measured by dry-sieving and all the illustrative examples of the application disclose processes involving a sieving step after agglomeration. Therefore, it would have been clear to the skilled person by reading the application that one way for obtaining a product having the required particle size distribution would have been to apply a sieving step after agglomeration. Such a sieving step, being a technique well known to the skilled person, would have not required any inventive skill (see

point VII above). Moreover, all the objections as to sufficiency of disclosure raised by the Respondent concerned in reality only Article 84 EPC which is not a ground for opposition.

The finding of the department of first instance was similar to that of the Appellant (see point III above).

1.1.2 According to the established case law of the Boards of Appeal of the EPO a European patent complies with the requirements of Article 83 EPC if a skilled person, on the basis of the description of the application as a whole and of the common general knowledge, is able to carry out the claimed invention in its whole extent without undue burden and without needing inventive skill. Moreover, the disclosure of one way of performing the invention in the application is only sufficient if it allows the invention to be performed in the whole range claimed. In this respect, also a reasonable amount of trial and error is permissible, provided that common general knowledge or the instructions contained in the application would lead the skilled person necessarily and directly towards success through the evaluation of initial failures (see Case Law of the Boards of Appeal of the EPO, 5th edition, 2006, points II.A.3 and 4, pages 175 to 178).

1.1.3 The Board remarks that according to the application all the mentioned conditioning steps, including sieving, may be carried out at any stage of the process and are considered to be **optional** (see page 8, lines 16 to 21 of the application as originally filed).

Furthermore, the indication in the description that the geometric mean particle diameter of the obtained particles can be measured by any standard mass-based particle size measurement technique and preferably by dry sieving (see page 4, lines 32 to 34) regards simply a known method for measuring the particle size distribution of an **agglomerated product** wherein different sieves are used in order to separate various fractions of the product and to permit the calculation of its particle size distribution. This teaching concerning only the measuring of the particle size distribution of the obtained granular detergent composition thus cannot be considered to be a suggestion to include a final sieving step as essential step for **preparing** such a composition.

In particular, even though sieving steps belonged certainly generically to the common general knowledge of the skilled person at the priority date of the patent in suit, it is undisputed that the application does not contain any suggestion why an optional sieving step should be carried out.

Finally, even though all the examples contained in the patent in suit concern processes involving a sieving step after agglomeration, it has not been disputed by the Appellant that these examples do not show a process leading to a product having the required particle size distribution.

The Board thus finds that a skilled person, by reading the application, would not have considered a sieving step or any other conditioning step to be an essential step of the process of the invention for obtaining a

granular detergent composition having the required particle size distribution.

The Board thus cannot agree with the finding of the department of first instance (see point III above) and with the Appellant's submission that claim 1 simply does not mention a feature essential for achieving the required particle size distribution, which feature (for example, a sieving step after agglomeration) would have been clear to the skilled person by reading the application.
Therefore, it cannot be concluded that claim 1 just does not contain an essential feature of the invention and is deficient under Article 84 EPC.

To the contrary, it is established case law of the Boards of Appeal of the EPO that in an invention like the present one characterised by a result to be achieved, i.e. in the present case the particle size distribution of the product obtained by the process of the invention, the information in the application must enable the skilled person to achieve the envisaged result within the whole ambit of the claim containing such a functional definition without undue difficulty and the description with or without the relevant common general knowledge must provide a fully self-sufficient technical concept as to how this result is to be achieved. If this is not the case the invention is to be considered as not having been sufficiently disclosed (see Case Law of the Boards of Appeal of the EPO, 5th edition, 2006, point II.A.6.1, page 183, last full paragraph; and T 713/98, points 3.1 and 3.2 of the reasons).

1.1.4 It should thus be evaluated whether the application contains sufficient information enabling the skilled person to obtain a granular detergent composition having the required particle size distribution by using the process steps considered to be essential, i.e. by mixing dry agglomerates and spray dried granules in at least one mixer selected from the group consisting of a low-speed mixer, a moderate-speed mixer, a high-speed mixer, and combinations of mixers thereof.

The description of the application teaches that such mixing steps lead to a particle size distribution wherein at least 50% of the particles have a geometric particle diameter from 500 to 1500 microns with a geometric standard deviation of from 1 to 2 (page 9, lines 18 to 21); therefore, these steps may lead to a particle size distribution which is much larger than that required by the invention of claim 1 according to the main request since the geometric standard deviation can be much greater than 1.4 and only 50% by weight of all particles can have the required particle size distribution.

Moreover, it is undisputed that the application does not contain any specific teaching as to how these mixing steps should be carried out in order to arrive at the required narrower particle size distribution of claim 1 and it also does not contain any teaching as to how to adjust or modify the agglomeration conditions in case the resulting product results to have a particle size distribution outside the invention.
It is also undisputed that such specific operative modifications did not belong to the common general knowledge of the skilled person.

The Board thus finds that the application does not disclose one way of performing the mixing steps in order to arrive at the required particle size distribution and the skilled person, though being certainly able to calculate the particle size distribution of the product made, by following the teaching of the application could only obtain the required product by trial and error.

However, in the absence of any useful technical concept in the application generically applicable to any mixing step for modifying the particle size distribution, the application does not contain any teaching that would lead the skilled person **necessarily and directly** towards success through the evaluation of initial failures.

The Board stresses in this respect that the invention does not relate to the selection of the particle size distribution of the final product but to the **preparation of a granular detergent composition**. Therefore, all the necessary process steps for obtaining the desired particle size distribution had necessarily to be indicated in the application in form of a technical concept permitting to the skilled person to realise the result to be achieved.

Since, as explained above, the application is deficient in this respect, it contravenes the requirements of Article 83 EPC.

2. Second auxiliary request

2.1 Sufficiency of disclosure

2.1.1 Claim 1 according to the **second auxiliary request** differs from that according to the main request only insofar as it comprises the wording "and subsequently sieving these particles," after "...to form particles,".

Therefore, the invention of claim 1 according to the second auxiliary request requires **a sieving step after agglomeration.**

2.1.2 It is undisputed that sieving operations were known to the skilled person at the priority date of the patent in suit and that all examples of the patent in suit disclose processes involving a sieving step after agglomeration even though such processes do not disclose the required particle size distribution of the final product, as explained hereinabove (point 1.1.3).

It is also undisputed that the application does not contain any information as to how to carry out the sieving operation after agglomeration and how to carry out the agglomeration itself in order to arrive at the required particle size distribution.

The Board agrees that it would have been clear to the skilled person, after having measured the particle size distribution of the agglomerated product, how to realise the invention by applying a sieving step in order to retain only a very restricted particles population with a geometrical mean particle size within

the limits of claim 1, **all the particles** having, for example, a particle size very close to each other.

However, the Board remarks that the invention involves not only the preparation of a granular detergent composition made of particles having a homogenous particle size very close to each other but includes in its whole extent the preparation of products having a broader particle size distribution with **only 95%** by weight of the particles having the required particle size distribution and wherein the geometrical standard deviation can range **up to 1.4**, the size of the particles thus being not only very close to each other.

For such a case, as already explained above, the application does not contain any technical concept fit for generalisation for modifying the necessary sieving steps or the agglomeration steps in order to obtain the required particle size distribution.

Moreover, as submitted by the Respondent during oral proceedings, the distribution of the agglomerated particles exiting the mixing step influence necessarily the type of particle size distribution obtainable by sieving this product; for example, in the case wherein the agglomerated product, though having a geometrical mean particle size within the invention, has a homogenous distribution across a large range of particle sizes from below 500 to above 1500 microns, it would not be possible to the skilled person, in the absence of a precise technical teaching in the application, to find out directly which sieving operation would be necessary for obtaining a geometric

standard deviation within the invention for 95% by weight of the particles.
Therefore, the skilled person, by following the teaching of the application, could carry out the process of the invention **in its whole extent** only by trial and error.

However, in the absence of any useful technical concept in the application generically applicable to any mixing step and any sieving step for modifying the particle size distribution of the product exiting the mixers and obtaining **any** particle size distribution encompassed by the invention of claim 1, the application does not contain any teaching that would lead the skilled person **necessarily and directly** towards success through the evaluation of initial failures.

Therefore, for the same reasons given above with regard to the main request, the invention of claim 1 according to the second auxiliary request lacks sufficiency of disclosure.

3. Third to fifth auxiliary requests

3.1 Sufficiency of disclosure

3.1.1 Claim 1 according to the **third auxiliary request** differs from that according to the main request only insofar as it comprises at the end the additional wording ", and the bulk density of the particles is in the range from 550 g/l to 850 g/l".

Claim 1 according to the **fourth auxiliary request** differs from that according to the third auxiliary

request insofar as it comprises at the end the additional wording ", the process further comprising the step of conditioning the resultant particles in at least one conditioning apparatus, wherein the step of conditioning includes at least one fluid bed granulator, and wherein the fluid bed granulator has a mean residence time from 30 seconds to 20 minutes" between "with a geometric standard deviation of from 1 to 1.4," and "and the bulk density of the particles is in the range from 550 g/l to 850 g/l".

Claim 1 according to **the fifth auxiliary request** differs from that according to the third auxiliary request only insofar as it comprises the wording "and subsequently sieving these particles," after "...to form particles,".

3.1.2 No indication can be found in the application that the selection of the bulk density of the final product or the use of a fluid bed granulator after agglomeration would permit to arrive necessarily and directly to the required particle size distribution through the evaluation of initial failures.

Therefore, the reasons given above with regard to the main request and the second auxiliary request apply *mutatis mutandis* to these requests.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh P.-P. Bracke