

**Internal distribution code:**

- (A) [ ] Publication in OJ  
(B) [ ] To Chairmen and Members  
(C) [X] To Chairmen  
(D) [ ] No distribution

**Datasheet for the decision  
of 16 March 2012**

**Case Number:** T 2438/09 - 3.3.06

**Application Number:** 04021614.5

**Publication Number:** 1484389

**IPC:** C11D 17/04, B65D 81/00

**Language of the proceedings:** EN

**Title of invention:**  
Detergent products, methods and manufacture

**Patent Proprietor:**  
THE PROCTER & GAMBLE COMPANY

**Opponent:**  
Henkel AG & Co. KGaA

**Headword:**  
Detergent products/PROCTER

**Relevant legal provisions:**  
EPC Art. 56

**Keyword:**  
"Inventive step: no (all requests)"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 2438/09 - 3.3.06

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.06  
of 16 March 2012

**Appellant:** Henkel AG & Co. KGaA  
(Opponent) Henkelstraße 67  
D-40589 Düsseldorf (DE)

**Representative:** Stevermann, Birgit  
Henkel AG & Co. KGaA  
VTP Patente  
D-40191 Düsseldorf (DE)

**Respondent:** THE PROCTER & GAMBLE COMPANY  
(Patent Proprietor) One Procter & Gamble Plaza  
Cincinnati, OH 45202 (US)

**Representative:** Samuels, Lucy Alice  
Gill Jennings & Every LLP  
The Broadgate Tower  
20 Primrose Street  
London EC2A 2ES (GB)

**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
3 November 2009 concerning maintenance of the  
European patent No. 1484389 in amended form.

**Composition of the Board:**

**Chairman:** P.-P. Bracke  
**Members:** G. Dischinger-Höppler  
J. Geschwind

## Summary of Facts and Submissions

I. This appeal is from the interlocutory decision of the Opposition Division concerning maintenance of European patent No. 1 484 389 in amended form on the basis of the then pending main request. The independent Claims 1, 3 and 8 read:

"1. A method of washing dishware/tableware in an automatic dishwashing machine using a machine dishwashing product in the form of a water-soluble pouch comprising a plurality of compartments in generally superposed or superposable relationship, each containing one or more detergent active or auxiliary components, wherein at least one of the plurality of compartments comprises a liquid composition or a composition in the form of a paste, gel or wax and wherein the pouch has a volume of from 5 to 70 ml and a longitudinal/transverse aspect ratio in the range from 2:1 to 1:8, preferably from 1:1 to 1:4, wherein the product is dispensed from the automatic dishwashing machine dispenser into the main wash cycle.

3. A method of washing dishware/tableware in an automatic dishwashing machine using a machine dishwashing product in the form of a water-soluble pouch comprising a plurality of compartments in generally superposed relationship, each compartment containing one or more detergent active or auxiliary components, wherein at least one of the plurality of compartments comprises a liquid composition and wherein the pouch comprises upper and lower generally opposing outer walls, a skirt-like side wall and one or more internal partitioning walls, and wherein each of said

upper and lower outer walls and said skirt-like side wall are formed by thermoforming, vacuum forming or a combination thereof, wherein the product is dispensed from the automatic dishwashing machine dispenser into the main wash cycle.

8. A method of washing dishware/tableware in an automatic dishwashing machine using a machine dishwashing product in the form of a water-soluble pouch comprising a plurality of compartments in generally superposed relationship, each compartment containing one or more detergent active or auxiliary components, wherein at least one of the plurality of compartments comprises a liquid composition and wherein the pouch comprises upper and lower generally opposing outer walls, a skirt-like side wall and one or more internal partitioning walls wherein at least one internal partitioning wall is secured to an upper or lower outer wall along a first seal line and one or both said of said outer wall and said partitioning wall are secured to the skirt-like side wall along a second seal line and wherein the seal lines are at least partially non-overlapping, wherein the product is dispensed from the automatic dishwashing machine dispenser into the main wash cycle."

II. A notice of opposition had been filed against the granted patent, wherein the Opponent sought revocation of the patent inter alia on the grounds of Article 100(a) EPC for lack of inventive step (Articles 52(1) and 56 EPC). The opposition was based, amongst others, on the following documents

D5 EP-A-0 593 952,

D6 CA-A-1 112 534 and

D11 WO-A-93/08095.

III. In its decision, the Opposition Division held that the subject-matter of the claims as amended in accordance with the then pending main request fulfilled the requirements of the EPC. Concerning inventive step, it was held that a skilled person would not have had any motivation to modify the method disclosed in document D5, where a decalcifier was released during the prewash step and not a dish washing product during the main wash cycle as claimed.

IV. This decision was appealed by the Opponent, now Appellant.

V. The Proprietor, now Respondent, maintained the main request and filed amended sets of claims in 10 auxiliary requests.

Claim 1 of any of the first to third auxiliary requests is identical to that of the main request. Claim 1 of the fourth to seventh auxiliary requests differs from that of the main request only in that the term "or superposable" has been deleted. Claim 1 of the eighth and ninth auxiliary requests is identical to Claim 3 of the main request and Claim 1 of the tenth auxiliary request is identical to Claim 8 of the main request.

VI. The Appellant, in writing and during the oral proceedings before the Board of appeal on 16 March 2012, submitted in essence the following arguments:

The subject-matter of none of the three independent Claims 1, 3 and 8 was inventive over the prior art disclosed in document D5 as the closest prior art in combination with the disclosure of document D11 and/or D6. This was due to the fact that the features distinguishing the claimed method from that disclosed in document D5 consisted of an aggregation of technically non-interrelated features and did not provide any other effect than that of an alternative process insofar as the pouches fit usual dispensers and are suitable to contain incompatible compounds.

These features were either known from documents D6 and D11 or optimisations which were usual for a person skilled in the art.

VII. The Respondent submitted in essence that the claimed subject-matter was not obvious if assessed unaware of document D5, thereby avoiding ex post facto analysis.

The process of document D5, as far as multi-compartment pouches were applied, was intended for decalcifying and then cleaning the dishwasher. Thus, if multi-compartment pouches were used, one compartment dissolved in the pre-wash cycle. There was no disclosure in document D5 of a detergent containing pouch with superposed or superposable liquid containing compartments suitable for release from the dishwasher dispenser of different and incompatible ingredients during the main wash cycle.

The technical problem solved in view of that prior art was to provide an improved process. A skilled person

which was someone wishing to improve the prior art would not consider combining document D5 with document D11, since the latter was concerned with the technical field of pesticides and the packages disclosed were used in a completely different manner.

Further it was believed that the particular preparation of the pouches according to Claim 3 provided more uniform walls, hence improved pouches and the non-overlapping seals of Claim 8 improved the sealing and avoided moisture problems.

VIII. The Appellant requested that the decision under appeal be set aside and the patent be revoked.

The Respondent requested that the appeal be dismissed or that the patent be maintained on the basis of one of the first to tenth auxiliary requests filed with letter of 19 July 2010.

### **Reasons for the Decision**

1. The only question to be decided in the present appeal case is whether or not the claimed subject-matter is based on an inventive step.
  
2. The patent in suit relates to the field of dishwashing and, in particular, to water-soluble multi-compartment pouches adapted to fit the dishwasher dispenser and containing a cleaning composition for release on dissolution of the pouch into the pre-wash, main wash and/or post-rinse cycles of the dishwashing machine (paragraph 1).

The independent Claims 1, 3 and 8 of the main request, specifically pertain to a method of washing dishware/tableware in an automatic dishwashing machine using a machine dishwashing product in the form of a water-soluble pouch comprising a plurality of compartments, wherein the product is dispensed from the automatic dishwashing machine dispenser into the main wash cycle.

It is explained in the description of the patent that unitised doses of dishwashing detergents, are found more attractive and convenient by consumers and allow more precise dosing. Further, better performance is obtained when the detergent is delivered from the dispenser at the beginning of the main wash cycle due to the avoidance of premature loss and dissolution of the detergent in the pre-wash. Moreover, it is stated in the patent that unitised detergent doses in the form of pouches have additional advantages over detergents in the popular tablet form, namely in that any contacts of the consumer with the dishwashing composition are avoided, that the process of manufacturing detergent pouches does not require powder compaction which decreases enzyme activity and dissolution rate of the tablet, in that liquid detergents can be included in amounts not limited by the absorption capacity of a solid carrier and without impairing the efficiency and dissolution of the actives to the wash and in that reactions between ingredients, e.g. between enzymes and bleach, can be avoided (paragraphs 2 to 6).

The technical problem underlying the invention is stated in the patent in suit to consist in the



provision of a multi-compartment unitised dose form capable of fitting the dispensers of different dishwashing machine types and which allows for the simultaneous delivery of incompatible ingredients and ingredients in differed physical forms (paragraph 8).

3. The relevant prior art for detergent products in pouch form mentioned in the patent in suit includes document D5 (paragraph 2) which is considered by the Appellant as a suitable starting point for the assessment of inventive step.

The Respondent, in contrast, submitted that in order to avoid ex post facto analysis, assessment of the claimed invention had to be done without any knowledge of the prior art.

This view does not, however, conform to the problem solution-approach normally applied by the Boards of Appeal for the assessment of inventive step. According to this approach inventiveness is assessed on the basis of a suitable piece of prior art and the effects actually achieved by the claimed invention when compared with that prior art, hence the effects achieved by those features which distinguish the claimed subject-matter from the prior art. These effects constitute the technical problem solved by the claimed invention in view of that prior art and it has to be examined whether it was obvious for a skilled person to solve that technical problem by those distinguishing features (Case Law of the Boards of Appeal of the European Patent Office, 6th edition, 2010, chapter I.D.2.).

4. Hence, a suitable piece of prior art, if present, has to be considered for the assessment of inventive step.

In the present case, the Board agrees with the Appellant that such piece of prior art is represented by document D5 since it relates to a similar technical problem as the patent in suit, namely the provision of detergent doses suitable for cleaning dishware in a dishwashing machine which do not present the drawbacks of detergents in powder or tablet form (page 2, line 16 to page 3, line 11).

5. Document D5 discloses a method of washing dishware in an automatic dishwashing machine using a machine dishwashing product in the form of a water-soluble pouch comprising at least one compartment containing a detergent composition. Depending on its size, the dishwashing product fits the dispenser of the dishwashing machine and may be placed therein. Alternatively, it is placed in the crockery basket. The material of the pouch can be selected so that the detergent is delivered either at the beginning of the pre-wash cycle or of the main-wash cycle (page 3, lines 12 to 24 and page 3, line 44 to page 4, line 25).

Further document D5 discloses a multi-compartment pouch comprising at least two compartments for holding different cleaning compositions, wherein the compartments may be connected to each other by a common weld, or one compartment may be contained within the other or wherein the compartments may be obtained by folding (page 5, lines 1 to 6).

Hence, document D5 discloses a method of dishwashing suitable to solve the technical problem underlying the patent in suit insofar as it uses unitised doses of dishwashing detergent capable of fitting usual dispensers of different dishwashing machines and of delivering incompatible ingredients or ingredients of different physical forms.

6. Main Request and first to seventh auxiliary requests

6.1 Document D5 does not explicitly disclose that

- the compartments are in generally superposed or superposable relationship;
- at least one of the compartments comprises a liquid composition or a composition in the form of a paste, gel or wax;
- the pouch has a volume of from 5 to 70 ml and longitudinal/transverse aspect ratio in the range from 2:1 to 1:8; and
- the product is dispensed from the automatic dishwashing machine dispenser into the main wash cycle.

6.2 The Respondent submitted that the technical problem solved by the claimed process in view of the disclosure of document D5 consisted in the provision of a further improved process. However, no evidence was provided to show any kind of improvements over the prior art.

Therefore, the technical problem credibly solved by the claimed process over the disclosure of document D5 has to be reformulated as providing a method of washing dishware in an automatic dishwashing machine suitable for simultaneous delivery of the contents of the multi-compartment pouches.

6.3 It remains to be decided whether it was obvious for someone skilled in the art to modify the method disclosed in document D5 so that (a) the compartments are in generally superposed or superposable relationship, (b) at least one of the compartments comprises a liquid composition or a composition in the form of a paste, gel or wax, (c) the pouch has a volume of from 5 to 70 ml and longitudinal/transverse aspect ratio in the range from 2:1 to 1:8 and (d) the product is dispensed from the automatic dishwashing machine dispenser into the main wash cycle, in order to solve the above technical problem.

6.4.1 As regards feature (a), the technical feature that the compartments of the pouch are generally superposed, document D5 teaches that the multi-compartment pouches can be formed by connecting the pouches via a common weld, by positioning one pouch inside the other, wherein the inner pouch can be bound to the wall of the outer pouch, or by folding (page 5, lines 1 to 6). In all these instances the two compartments have a wall in common and must be considered to be at least partially superposed or superposable as required in Claim 1. Hence, the Board holds that contrary to the Respondent's view, document D5 already suggests pouches with compartments in superposed or superposable

relationship for use in a method of washing dishes in an automatic dishwasher.

6.4.2 As regards feature (b), it is acknowledged in the patent in suit (see paragraph 6) that both, liquid and solid detergent for use in dishwashing was known at the priority date of the patent in suit. Document D5 does not mention liquids but suggests that different detergent ingredients for different purposes can be used in the different compartments (page 5, lines 1 to 2). However, liquid detergents in pouches for use in the dispenser of an automatic dishwasher are also known in the art (document D6, page 1, lines 1 to 10, page 3, lines 21 to 26 and page 5, lines 27 to 28). Therefore, it is obvious for those skilled in the art to try in the method of document D5 also detergent ingredients of different physical form.

6.4.3 Concerning feature (c), the Board remarks that the size and form of the dispensers of the dishwashing machines available on the market were certainly known to the skilled person (see e.g. paragraph 3 of the patent in suit) and that, as acknowledged in the patent in suit (paragraph 4) it was common general knowledge how to adapt the size of a detergent tablet to such dispensers.

Therefore, the skilled person would have necessarily selected a pouch of a suitable size for applying the dishwashing method of document D5, hence a volume and a longitudinal/transverse aspect ratio within the limits indicated in Claim 1, since it is undisputed that the only purpose of these technical features consists in using pouches which fit the dispensers of most of the

available dishwashing machines (see paragraph 18 of the patent in suit).

6.4.4 With respect to feature (d), the Respondent argued that document D5 taught multi-compartments pouches only for separate delivery of the ingredients in the pre- and main-wash cycles in order to clean the dishwasher.

Indeed, according to one embodiment of document D5, the detergent composition can be used or adapted to be suitable for cleaning and/or decalcifying the dishwashing machine (page 4, lines 50 to 57) and the material of the pouches is appropriately selected so that the contents of the different compartments are delivered at different times (page 5, lines 7 to 10).

Thus, one of the pouches may contain an acid decalcifying component and can be delivered in the pre-wash cycle and the other may contain an alkaline cleaning composition for delivery during the main-wash cycle (page 5, lines 18 to 32).

This embodiment is illustrated in the only specific example referring to the use of multi-compartment pouches where a separate decalcifying and then cleaning of the dishwashing machine is carried out by placing the pouch in the crockery basket of the dishwashing machine (see document D5, page 5, lines 7 to 20).

However, in the Board's view, this embodiment is disclosed as being only an example of a possible use of the multi-compartment pouches. Likewise, the separate delivery of the contents of the compartments is

disclosed only as an option in accordance with circumstances (page 5, lines 7 to 10).

On the other hand, document D5 contains the clear teaching that the detergent pouches are also placed in the dispenser of a dishwashing machine and used for cleaning dishware (page 3, lines 12 to 24 and page 3, line 44 to page 4, line 25).

Therefore, it is obvious for a skilled person to try multi-compartment pouches also in the main-wash dispenser of the dishwashing machine, if he wishes to deliver simultaneously incompatible detergent components into the main-wash cycle for cleaning dishes.

- 6.5 The Board concludes that the skilled person, faced with the above mentioned technical problem of providing a further method of dishwashing by using a unitised dose form which is capable of fitting the dispensers of different dishwashing machine types and allows for the simultaneous delivery of incompatible ingredients and ingredients in different physical forms, would have arrived at the subject-matter of Claim 1 by following the teaching of document D5 and using his common general knowledge.

Therefore, the subject-matter of Claim 1 of the main request does not amount to an inventive step.

- 6.6 This applies mutatis mutandis to the first to seventh auxiliary request which all contain a Claim 1 which is either identical with that of the main request (first to third auxiliary requests) or restricted to the

embodiment of Claim 1 of the main request with generally superposed compartments (point V above).

7. Eighth and ninth auxiliary requests

7.1 Claim 1 of the eighth and ninth auxiliary requests is identical with Claim 3 of the main request and differs from Claim 1 of the main request insofar as the pouch is not limited with respect to its volume and dimensions but limited insofar as it comprises upper and lower generally opposing outer walls and a skirt-like side wall, which are all formed by thermoforming and/or vacuum forming, and at least one internal partitioning wall.

7.2 The Appellant did not suggest that the particular assembly of walls would bring about any advantages but believed that the particular preparation by thermoforming and vacuum forming would provide more uniform walls.

Further, the Respondent argued that a person skilled in the art of dishwashing would not consider a document belonging to the technical field of pesticides in order to improve a dishwashing process. Hence, he would not have combined document D11 with document D5, the more so as the packages of document D11 were used in a different manner.

7.3 The Board is not convinced by those arguments since the Respondent failed to provide any evidence in support of his allegation of an improvement. Hence, the technical problem actually solved in view of the method known from document D5 again can only be seen in the



provision of further method of washing dishware which is suitable for simultaneous delivery of different dishwashing detergents.

According to Claim 1 this problem is solved by using in the dispenser of the dishwashing machine a particular water-soluble, liquid containing multi-compartment pouch, namely one comprising upper and lower generally opposing outer walls and a skirt-like side wall, which are all formed by thermoforming and/or vacuum forming, and at least one internal partitioning wall.

It is uncontested that such multi-compartment pouches are known in the art, namely from document D11 (see page 1, lines 1 to 5, page 4, lines 19 to 20, page 10, line 36 to page 11, line 4, page 13, lines 22 to 29 and Figure 1).

According to document D11, the purpose of these packages consists in the provision of unitised dosages of different and toxic components which are released only after contact with water at a minimum risk of accidental contact with the toxic material (page 2, line 21 to page 3, line 8).

The Board agrees with the Respondent insofar as according to document D11, the toxic material is typically a pesticidal composition which is applied to the material to be treated by first dissolving the pouches in water contained in a spray tank and then spraying the solution onto the material to be treated (page 3, lines 9 to 15 and page 13, lines 10 to 21).

However, the use of modified pouches in the method of document D5 is generally one of the options open to the skilled person being concerned only with the provision of a further method of washing dishware which is suitable for simultaneous delivery of different dishwashing detergents.

Under such circumstances those skilled in the art are expected to consider any prior art relating to packages suitable for that purpose, hence also document D11, the more so as this document also seeks to prevent contact between consumers and the toxic material as document D5 does (D5, page 2, lines 25 to 29).

7.4 The Board concludes therefore that the subject-matter of Claim 1 of the eighth and ninth auxiliary requests is not based on an inventive step.

8. Tenth auxiliary request

8.1 Claim 1 of the tenth auxiliary request differs from that of the eighth and ninth auxiliary requests insofar as it does not require that the outer and side walls of the pouch are formed by thermoforming and/or vacuum forming. Instead it is required that the walls are sealed by two at least partially non-overlapping seal lines, of which the first one secures an internal partitioning wall to an upper or lower outer wall and the second one secures said outer wall and/or said partitioning wall to the skirt-like side wall.

8.2 The Respondent argued that the seal lines of the pouches disclosed in document D11 were such that overlapping of the seals was not avoided, so that the

sealing in document D11 was less moisture-proof and therefore worse.

- 8.3 The Board does not agree since there is only one sealing present in the pouch illustrated in Figure 7 (see also page 14, lines 12 to 13). This seal line secures the upper outer wall and the partitioning wall to the skirt-like side wall of the pouch and is therefore, identical to the second seal line of Claim 1.

The Respondent has not indicated any specific purpose of the first seal line of Claim 1 which secures the partitioning wall to the upper outer wall for the claimed method. The Board observes that such first seal line might have an impact on the production of the pouches. However, no effects are apparent as to the dishwashing method.

Hence, the presence of the first seal line in Claim 1 is arbitrary regarding the claimed method and, hence, not a feature on which an inventive step could be based.

- 8.4 Therefore, the above conclusions with respect to Claim 1 of the eighth and ninth auxiliary requests apply also to Claim 1 of the tenth auxiliary request.

9. Since all of the Respondent's requests fail, the patent has to be revoked.

**Order**

**For these reasons it is decided that:**

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

The Registrar:

The Chairman:

D. Magliano

P.-P Bracke