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**Datasheet for the decision
of 7 September 2017**

Case Number: T 2010/14 - 3.3.06

Application Number: 08786958.2

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Language of the proceedings: EN

Title of invention:
Improvements relating to fabric treatment compositions
comprising sequestrants and dispersants

Patent Proprietor:
Unilever PLC and Unilever N.V.

Opponent:
The Procter & Gamble Company

Headword:
Laundry process / UNILEVER

Relevant legal provisions:
EPC Art. 52(1), 56, 84, 114(2), 123(2)
EPC R. 80
RPBA Art. 12(4), 13(3)

Keyword:

Clarity of claim 1 (main request and auxiliary requests 1 to 3) : no

Compliance with Rule 80 EPC (auxiliary request 4): no

Admissibility of auxiliary request 5 filed during oral proceedings : yes

Clarity of claim 1 (auxiliary request 5) : yes

Compliance with Article 123(2) EPC (auxiliary request 5) : yes

Admissibility of document D15 filed with the statement of grounds : yes

Inventive step (auxiliary request 5) : yes

Decisions cited:

G 0003/14

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2010/14 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 7 September 2017

Appellant: The Procter & Gamble Company
(Opponent) One Procter & Gamble Plaza
Cincinnati, Ohio 45202 (US)

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

Respondent: Unilever PLC, A Company Registered in England
(Patent Proprietor) and Wales under Company no. 41424
Unilever House
100 Victoria Embankment
London EC4Y 0DY (GB)

Unilever N.V.
Weena 455
3013 AL Rotterdam (NL)

Representative: McHugh, Paul Edward
Unilever
Patent Group
Unilever Colworth
Sharnbrook
Bedford
MK44 1LQ (GB)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
24 July 2014 concerning maintenance of the
European Patent No. 2190964 in amended form.**

Composition of the Board:

Chairman B. Czech
Members: L. Li Voti
 C. Heath

Summary of Facts and Submissions

- I. The present appeal is from the decision of the Opposition Division concerning maintenance of European patent no. 2 190 964 in amended form.
- II. Claims 1 and 2 according to the **main request** (auxiliary request 1 found allowable by the Opposition Division) read as follows (features added to claim 1 as granted highlighted by the Board, amendments to claim 3 as granted made apparent by the Board):

"1. A method of conferring an improved whiteness benefit to a white textile article during a laundry process, comprising the steps of:

a) provision of an aqueous liquor comprising a laundry treatment composition which comprises a fluorescent whitening agent and an active agent, and,

b) contacting the white textile article with the aqueous liquor of a);

characterised in that the active agent comprises:

i) a transition metal cation sequestrant; and,

ii) a dispersant which comprises one or more of naphthalene sulphonate-formaldehyde condensates, acrylic polymers, sulphonated styrene/maleic anhydride copolymers or a mixture thereof; and,

that the white textile article is first contacted with the laundry treatment composition comprising the active agent during a wash step, and is further contacted with active agent made available from a different and separate rinse-added laundry treatment composition,

wherein the sequestrant and dispersant are each present in the main wash liquor and rinse liquor at a level of from 0.001g/l to 1.0g/l."

" 3 2. A method as claimed in claim 2 1, wherein the

*sequestrant and dispersant are each present in the aqueous-liquor **main wash liquor and rinse liquor** at a level of from 0.0015g/l to 0.5g/l."*

- III. The Opponent had opposed the patent as a whole invoking lack of novelty and lack of inventive step (Article 100(a) EPC).

The parties relied *inter alia* on the following documents:

- D1:** Handbook of Detergents - Part D: Formulation, edited by M.S.Showell (2006); section "III. Typical Laundry Detergent Ingredients", pages 56 to 66;
D4: GB 1 210 952 A; and
D5: EP 0 364 260 A2.

- IV. The Opposition Division found in its decision that the then pending auxiliary request 1 complied with, in particular, the requirements of Rule 80 and Articles 84, 123(2) and 123(3) EPC and that the claimed subject-matter was novel and involved an inventive step.

- V. With its statement of grounds the Appellant (Opponent) filed *inter alia* the following document

- D15:** Surfactant science series vol. 71, "Powdered Detergents" edited by M.S.Showell (1998), page 289.

It argued that claim 1 according to the request held allowable by the Opposition Division did not comply with the requirements of Articles 84 and 123(2) EPC and lacked an inventive step in the light of *inter alia* D5 taken as the closest prior art.

It also submitted that amended claim 2 according to said request caused a non-compliance with Rule 80 EPC.

VI. In its reply dated 16 April 2015, the Respondent (Patent Proprietor) defended the patent in the form held allowable by the Opposition Division, rebutting all the Appellant's objections. With said reply, the Respondent nevertheless also filed four sets of amended claims as auxiliary requests 1 to 4. As regards inventive step, it submitted *inter alia* that the closest prior art was represented by D4, not D5. The Respondent also requested the non-admittance of D15.

Claim 1 of **auxiliary request 1** and claim 1 of **auxiliary request 2** are identical to claim 1 of the main request (wording under II, *supra*).

Claim 1 of **auxiliary request 3** differs from claim 1 of the main request in that it additionally comprises the features "**wherein the laundry process comprises a main wash step, three or more intermediate rinse steps and a final rinse step, and**" inserted before "*wherein the sequestrant and dispersant are ...*".

Claim 1 of **auxiliary request 4** differs from that of auxiliary request 3 in that it additionally comprises the feature "**; wherein contact with further active agent occurs during all rinse steps of the wash process,**" inserted before "*wherein the laundry process comprises*".

Claim 2 of this request is identical to claim 2 of the main request.

VII. The parties were summoned to oral proceedings. In a communication issued in preparation thereof, the Board *inter alia* expressed its preliminary opinion that all

pending auxiliary claim requests, as well as document D15, appeared to be admissible.

- VIII. In a reply thereto, the Appellant reiterated its previously raised objections and extended them to the claims of all pending auxiliary requests.
- IX. During the oral proceedings held on 7 September 2017, the Respondent filed a further amended set of claims as auxiliary request 5.

Claim 1 of **auxiliary request 5** reads as follows (features added to claim 1 of the main request made apparent by the Board):

*"1. A method of conferring an improved whiteness ... characterised in that ... and, that the white textile article is first contacted with the laundry treatment composition comprising the active agent during a wash step, and is further contacted with active agent made available from a different and separate rinse-added laundry treatment composition; **wherein contact with further active agent occurs during all rinse steps of the wash process, wherein the laundry process comprises a main wash step, three or more intermediate rinse steps and a final rinse step, and** wherein the sequestrant and dispersant are each present in the main wash liquor and rinse liquor at a level of from 0.001g/l to 1.0g/l."*

Dependent claims 2 to 4 of said request are directed to more specific methods.

- X. Final requests

The Appellant requested that the decision under appeal

be set aside and that the patent be revoked.

The Respondent requested that the appeal be dismissed or, in the alternative, that the patent be maintained in amended form on the basis of one of the sets of claims filed as auxiliary requests 1 to 4 by letter of 16 April 2015, or of auxiliary request 5 filed during oral proceedings.

XI. The parties' arguments of relevance here can be summarised as follows:

Main request and auxiliary requests 1 to 3 - Clarity

According to the **Appellant** the wording of claim 1 at issue did not clearly specify whether the respective concentrations of sequestrant and dispersant (in the following **the active agent components**) in the rinse liquor were mandatory in any possible rinse step of the claimed method, or only in those rinse steps which included the addition of a laundry treatment composition comprising the active agent. Moreover, it was also not clear whether the required concentrations of the active agent components in the rinse liquor were those of the rinse liquor formed during the washing process, i.e. including a possible carry-over from preceding steps of the wash process, or those of a laundry treatment composition comprising active agent and being added during the rinse. Claim 1 was thus not clear (Article 84 EPC.)

According to the **Respondent** the skilled person, considering also the wordings of dependent claims 5 and 6, would clearly understand that the levels of active agent components in the rinse liquor as required by claim 1 concerned at least one rinse step wherein a

laundry treatment composition comprising active agent was added. Moreover, the indicated concentrations of the active agent components were clearly those prevailing in the rinse liquor formed during execution of the method, including any possible carry-over. Claim 1 thus complied with the requirements of Article 84 EPC.

Auxiliary request 4 - Claim 2

The **Appellant** argued that amending the expression "aqueous liquor" of granted claim 3 to "main wash liquor and rinse liquor" in the corresponding claim 2 at issue (see II, *supra*) was not occasioned by a ground of opposition, and was not necessary in view of the amendments made to claim 1. The so amended claim was thus objectionable under Rule 80 EPC.

The **Respondent** argued that claim 2 had merely been brought into conformity with the amended wording of claim 1. Therefore, amended claim 2 was not objectionable under Rule 80 EPC.

Auxiliary request 5 - Article 123(2) EPC

According to the **Appellant** claim 1 as amended amounted to an intermediate generalisation not supported by the contents of the application as filed. In particular, it was not directly and unambiguously derivable therefrom that the levels of active agent components required according to claim 1 had to prevail in any rinse step of the method of the invention. Therefore, claim 1 contravened the requirements of Article 123(2) EPC.

The **Respondent** argued that amended claim 1 found a sufficient basis in the application as filed.

Auxiliary request 5 - Inventive step

For the **Appellant** D5 represented the closest prior art. D5 disclosed in fact in example 3 a detergent composition comprising fluorescers and active agent, which was suitable for being used as laundry detergent composition for washing white fabrics. Therefore, it concerned a method of providing whiteness benefits to white textile articles during a laundry process.

The technical problem of the invention solved by the claimed invention in the light of this closest prior art consisted in the provision of a laundry method for further improving the whiteness (or reducing the loss of whiteness) of the washed white textile articles.

However, it would have been obvious for the skilled person, in view of common general knowledge, as illustrated by D15 and D1, to also add the active agent components, already present in the main wash detergent formulation of D5/example 3, in the rinse steps, in order to prevent the build-up of dingy soil on the textile articles and to thereby improve their whiteness (or reduce loss of whiteness). Similar arguments would also apply when starting from D4, cited as closest prior art by the Respondent. The subject-matter of claim 1 thus lacked an inventive step.

The **Respondent** considered D4 to represent the closest prior art. However, it argued that the claimed subject-matter involved an inventive step even when starting from document D5 as closest prior art. In fact, the prior art documents invoked did not contain any suggestion to add the active agent components during all the rinse steps of a wash process. Quite to the contrary, in order to improve whiteness, it was

apparently common general knowledge to add such active agent components in the main wash and to rely either on them being carried over into the following rinse steps, or to rely on the action of different active components such as bleaches throughout the wash. The claimed method, instead, did not rely on such a carry-over from the main wash step, as shown in the comparative experiments described, for example, in example 2 of the patent in suit. The claimed subject-matter thus involved an inventive step. For similar reasons, the claimed subject-matter was also not obvious starting from D4 as closest prior art.

Reasons for the Decision

Main request - lack of clarity - claim 1

1. The method of claim 1 requires *inter alia* that "the white textile is first contacted with the laundry treatment composition comprising the active agent during a wash step, and it is further contacted with such an active agent made available from a different and separate **rinse-added laundry treatment composition**, wherein the sequestrant and dispersant are each present in the main wash liquor and rinse liquor at a level of from 0.001g/l to 1.0g/l."
- 1.1 Claim 1 at issue is based on a combination of claim 1 as granted with features (numerical levels) taken from claim 2 as granted. In combining the claims, the Respondent did, however, amend the wording "... each present in **the aqueous liquor** at a level ..." to "each present in **the main wash liquor and rinse liquor** at a level ...".

Claim 1 at issue is thus open to objections under Article 84 EPC arising from this amendment (G 3/14, OJ 2015, 102; Order).

1.2 The Board holds that the skilled person doubtlessly understands that in the context of a method as defined in claim 1 the expression "*rinse liquor*", following the expression "*main wash liquor*" relates to the rinse liquor actually acting on the textile and being formed during a rinse step carried out after the main wash. Therefore, it cannot be understood to relate to the liquor comprising active agent (i.e. the "*rinse-added laundry treatment composition*" referred to in claim 1) added during a rinse step, as argued by the Appellant. The Board thus holds (like the Opposition Division under point 2.3.2, second full paragraph, of the decision under appeal) that the "*level*" of active agent components in the "*rinse liquor*" unambiguously defines the concentrations of these components in the rinse liquor, but including amounts possibly carried-over from preceding steps of the wash process, and not the level of active agent components in the "***separate*** *rinse-added laundry treatment composition*" (emphasis added by the Board).

1.3 It was not in dispute that since claim 1 is directed to "*[a] method ... **comprising** the steps of ...*", the claimed method may include further steps not explicitly indicated in the claim, for example, additional rinse steps. This is corroborated by dependent claims 5 and 6 of the request at issue which read as follows (emphasis added by the Board):

"5. A method as claimed in any one of claims 1 to 4, wherein contact with further active agent occurs during the ***final rinse step*** of the wash process."

"6. A method as claimed in any one of claims 1 to 4, wherein contact with further active agent occurs during **all rinse steps** of the wash process".

- 1.4 Claim 1 does not require the "rinse liquor" having the required levels of active agent components to be necessarily a liquor formed by adding said "separate rinse-added laundry treatment composition". The "rinse liquor" referred to in claim 1 may in fact alternatively be the liquor formed after the main wash step by, for example, simply adding water, thereby diluting active agent carried over, i.e without actually **adding**, during this particular rinse step, said "rinse-added laundry composition" comprising active agent. It is not in dispute that levels of active agent components in the rinse liquor within the range defined in claim 1 may result, at least in the first rinse step of the method, exclusively from the carry-over of active agent components from the main wash step.
- 1.5 Therefore, due to the amendment made, claim 1 is ambiguous as to whether the required level of 0.001 g/l to 1.0 g/l of each active agent component must prevail in the rinse liquor
- only in those one or more rinse steps during which the "separate rinse-added laundry treatment composition" is actually added, as implicitly specified in dependent claims 5 and 6,
 - or
 - in every rinse step of the method, i.e. even in a rinse step during which no addition of such a "separate rinse-added laundry composition" occurs.
- 1.6 Due to this ambiguity in meaning, claim 1 is open to different interpretations of its ambit. In the Board's

judgement, claim 1 thus lacks clarity (Article 84 EPC).

1.7 The Respondent's main request is thus not allowable.

Auxiliary requests 1 and 2 - lack of clarity - claim 1

2. Clarity of claim 1 (Article 84 EPC)

2.1 Claim 1 of auxiliary request 1 and claim 1 of auxiliary request 2 are both identical to claim 1 of the main request (see VI, *supra*). Therefore, these claims lack clarity for the reasons given *supra*.

2.2 Hence, none of the Respondent's auxiliary requests 1 and 2 is allowable.

Auxiliary request 3 - lack of clarity - claim 1

3. Clarity of claim 1 (Article 84 EPC)

3.1 Compared to claim 1 of the main request, the amended claim 1 at issue comprises the additional features "*wherein the laundry process comprises a main wash step, three or more intermediate rinse steps and a final rinse step*".

3.2 Although the added wording defines more specifically the sequence of wash and rinse steps of the claimed method, it is still ambiguous as regards the question whether the levels of the active agent components prevailing in the rinse liquor must be in the specified range

- in **all** the rinse steps of the claimed method, including possible rinse steps during which no "*separate rinse-added laundry composition*" is added, or

- only in one or more rinse steps during which the "*separate rinse-added laundry treatment composition*" is actually added.

3.3 Due to this ambiguity claim 1 at issue also lacks clarity (Article 84 EPC) for similar reasons as claim 1 of the the main request.

3.4 Respondent's auxiliary request 3 is thus not allowable either.

Auxiliary request 4 - non-compliance with Rule 80 EPC

4. The wording of dependent claim 2 of auxiliary request 4 is identical to that of claim 2 of the main request (VI and II, *supra*). In the latter the wording of the corresponding granted claim 3 was modified by replacing the wording "*aqueous liquor*" with "*main wash and rinse liquor*".

4.1 Rule 80 EPC stipulates that in opposition proceedings "the description, claims and drawings may be amended, provided that the amendments are occasioned by a ground for opposition under Article 100."

4.2 The Respondent argued that amended claim 2 at issue had simply been brought into conformity with independent claim 1 at issue, which comprised the added wording "... each present in the **main wash liquor and rinse liquor** at a level ..." inserted to overcome patentability objections.

4.3 As regards the admissibility of said amendment to a dependent claim under Rule 80 EPC, the Board holds that there was no objective need to adapt, not even for consistency reasons, the wording of this depending

claim to the amended wording of claim 1.

- 4.3.1 More particularly, claim 3 as granted defines the levels of sequestrant and dispersant in "*the aqueous liquor*". The only antecedent for this expression in claim 1 as granted is the "*aqueous liquor*" referred to in steps a) and b) thereof, and said steps a) and b) **are still defined in the same terms** in amended claim 1 at issue.
- 4.3.2 Therefore, with regard to the amendment of claim 1 by incorporation of the features "*... each present in the main wash liquor and rinse liquor at a level ...*", the wording of former dependent claim 3 (now claim 2) would not generate an incompatibility of some sort.
- 4.4 In the Board's view the amendment contained in dependent claim 2 was thus not necessary in light of the amendment to claim 1. Moreover, as confirmed by the Appellant, no other objection occasioned by a ground of opposition was specifically raised against granted claim 3.
- 4.5 Respondents' auxiliary request 4 is thus not admissible pursuant to Rule 80 EPC and not further considered.

Auxiliary request 5 - Admissibility

5. The set of claims of auxiliary request 5 differs from that of auxiliary request 4 only in that it no longer comprises claim 2 of the latter (found objectionable under Rule 80 EPC) and in that the other dependent claims are renumbered and their back references adapted.
- 5.1 Moreover, the Respondent had already indicated at the

outset of the oral proceedings that it intended to delete said claim 2 from any request containing it should this be a bar to the allowability of the requests under Rule 80 EPC. The Respondent filed auxiliary request 5 during oral proceedings following the decision of the Board not to allow auxiliary request 4 for non-compliance with Rule 80 EPC.

5.2 The Appellant did not contest the admissibility of this request. Moreover, this amendment by deletion did not surprise the Board or the other party and does not raise any further, let alone complex issue.

5.3 Therefore, the Board decided to admit auxiliary request 5 into the proceedings despite its late filing (Article 13(3) RPBA).

Admissibility of document D15 filed upon appeal

6. Document D15 was filed by the Appellant with its statement of grounds.

6.1 At the oral proceedings the Respondent did no longer object to the admissibility of this document which merely illustrates common general knowledge relevant to the debated questions concerning carry-over from the main wash step to the rinse stages.

6.2 Therefore, the Board decided to admit document D15 despite its late filing (Article 114(2) EPC; Article 12(4) RPBA).

Auxiliary request 5 - clarity

7. In claim 1 at issue it is additionally specified that "contact with **further active agent** occurs during all

rinse steps of the wash process".

- 7.1 The Board holds that the person skilled in the art, reading the claim with common sense, understands without doubt that the required level of active agent components in the rinse liquor must be complied within all rinse steps of the wash process and that in **each** rinse step of the wash process "*the white textile article ... is **further contacted with active agent** made available from a different and separate rinse-added laundry treatment composition*" (emphasis added).
- 7.2 Therefore claim 1 at issue does not suffer from the ambiguities affecting claim 1 of the main request. The claims at issue are thus clear (Article 84 EPC).

Auxiliary request 5 - compliance with Article 123(2) EPC

8. The Appellant objected that the claimed subject-matter amounted to an intermediate generalisation of the disclosure in the application as filed, especially as regards the concentration of the active agent components in the rinse liquors of all rinse steps.
- 8.1 As regards the level of the active agent components, the description of the application as filed (reference being made to the published international application WO 2009/040175 A1) reads (page 5, lines 7 to 9): "*The sequestrants and dispersant present in the method according to the invention are present in the aqueous liquor at a level from 0.001g/L to 1.0g/L ... to **each required stage of the wash process.***"
- 8.2 For the Board, this sentence clearly expresses that such levels must prevail in the aqueous liquor contacting the textile article present in each of the

steps of the wash process, including all rinse steps.

8.2.1 This is further confirmed by the passage (page 9, lines 22 to 30) entitled "The Aqueous Liquor" and reading (emphasis added: "*In the method of the invention, the aqueous composition (**be it main wash liquor, or a rinse liquor**) comprises the active agent.*

*In the method of the invention, the textile is contacted with the aqueous composition comprising the active agent in the main wash and **further** active agent is made available during a subsequent rinse step of the laundry process for contact with the white textile articles."*

8.3 Therefore, in the Board's judgement, the subject-matter as defined in the claims at issue is directly and unambiguously derivable from the application as filed.

8.4 Claim 1 at issue also finds a basis in the following passages of the description of the application as filed (page 3, lines 24 to 26, and page 11, lines 23 to 25): "*In one embodiment, contact with further active agent may suitably happen by addition of a second portion of active agent to a subsequent laundry step, i.e. the active added to the main wash and to one or more rinse steps.*"

"Contact with the further active agent means that the concentration of active agent in the aqueous composition is replenished or increased during the laundry process or is kept substantially constant throughout the process."

These passages also illustrate the addition of a composition comprising active agent in all rinse steps and that the rinse liquor comprises, throughout the

entire wash process, the required levels of active agent components.

8.5 No other objections were raised under Article 123(2) EPC against claim 1, or the claims dependent thereon. The Board sees no reason for taking another stance in this respect.

8.6 In the Board's judgement, the claims at issue thus comply with the requirements of Article 123(2) EPC.

Auxiliary request 5 - Inventive step

9. The invention

9.1 The invention relates (paragraph [0001] of the patent in suit and claim 1) to a method of conferring a whiteness benefit to white textile articles during fabric laundering.

9.2 In paragraph [0002] of the patent the following is stated: *"Consumers are aware that white textile articles lose their apparent whiteness over repeated wash and wear cycles. ... This perceived loss of whiteness can occur from ...; It may also occur due to ... the deactivation of the fluorescent whitening agent (FWA)"*.

According to paragraph [0005] of the patent *"[i]t is therefore desirable to confer an improved whiteness benefit to white textile articles during the laundering process."*

10. The closest prior art

10.1 Whereas the Appellant considered that D5 represented

the closest prior art for the assessment of inventive step, the Respondent maintained that D4 was a more appropriate starting point.

- 10.2 In the following, the Board considers, in the Appellant's favour, D5 as closest prior art.
- 10.3 The most suitable starting point is, according to the Appellant, a method of washing white fabrics using the formulation of example 3. Said fully formulated detergent composition comprises
- a fluorescer (Tinopal DMS-X),
 - a dispersant (FCNSA: "Acid Condensate of Suparex M"; see D5, page 7, lines 34-35), i.e. a formaldehyde condensate of naphthalene sulfonic acid (page 2, lines 30-31), which is a dispersant according to claim 1 at issue (see paragraphs [0018] and [0019] of the patent), and
 - EDTA, a sequestering agent (see paragraph [0016] of the patent).
- 10.4 The Board accepts that the person skilled in the art would understand that the composition of D5/ex.3, comprising a fluorescer, is intended to be used in a laundering process, as indicated on page 3, lines 42-43 and 55-56, of D5, for the washing of white textiles.
11. The technical problem
- 11.1 It was common ground between the parties that the technical problem to be solved by the invention in the light of the closest prior art consisted in the provision of a method of laundering providing improved whiteness benefits.

12. The solution

12.1 As the solution to this technical problem the patent in suit proposes the method according to claim 1, characterised in particular in that *"the laundry process comprises a main wash step, three or more intermediate rinse steps and a final rinse step"*, and in that the components of the active agent, i.e. *"the sequestrant and dispersant are each present in the main wash liquor and rinse liquor at a level of from 0.001g/l to 1.0g/l."*

12.2 On the basis of the considerations under points 7 to 7.2, *supra*, the skilled person understands that the main wash liquor and every rinse liquor comprise 0.001 g/l to 1.0 g/l of each of the two active agent components, and that the active agent is added to the main wash liquor as a component of the laundry detergent composition, and in all rinse steps in form of a *"rinse-added laundry treatment composition"*.

13. The success of the claimed solution

13.1 In example 2 of the patent in suit (paragraphs [0110] to [0114]) a method wherein active agent (1% Sequestrant IDS and 1% Dispersant Suparex KS) is added **to the main wash only** (example 2B) is compared with a method wherein the same total amount of active agent is added in five equal portions`in **the main wash and four rinse steps** (example 2C).

13.2 Example 2B can thus be considered to represent the method of the closest prior art D5/ex.3 (with possibly some carry-over of active agent into the rinse liquor but without deliberate, separate addition of active

agent to each rinse step) while Example 2C represents a method according to claim 1 at issue.

Table 2 shows that example 2C provides a reflectance R440 value of the treated fabric of 96.55 whilst example 2B a reflectance value of only 90.27.

- 13.3 In view of these data the Board accepts that methods according to claim 1 at issue provide a significantly improved whiteness, compared to methods wherein the active agent is only added during the main wash. This was not in dispute.
- 13.4 Considering the information provided by the description of the patent in suit, and in particular example 2, the Board is satisfied that the technical problem posed is successfully solved by the method of claim 1 at issue. This was also not in dispute.
- 14. Non-obviousness of the solution
 - 14.1 Document D5 taken alone
 - 14.1.1 The Board considers plausible that, as argued by the Appellant, by using the detergent composition of D5/ex. 3 in a laundry wash process at a conventional dosing level (for example in the range of from 1 g/l to 5 g/l) the main wash liquor would necessarily contain a level of active agent components within the range required in claim 1 at issue (0.001 to 1.0 g/l). The Board also accepts that a conventional laundry wash process necessarily includes one or more rinse steps. These considerations were not in dispute.
 - 14.1.2 It is, however, also not in dispute that document D5 does not disclose nor suggest to also add active agent

components as contained in the formulation of D5/ex.3 during any of the rinse steps following the main wash stage.

The Board holds that the statement in D5 (page 3, line 57, to page 4, line 1) reading "*[w]ithin the context of the present invention, the term 'cleaning product' also embraces compositions of the kind used as fabric conditioners ... which are only added in the rinse water (sometimes referred to as 'rinse conditioners')*" does not relate to the fully formulated composition of D5/ex.3. As already mentioned, the person skilled in the art would, considering its composition and the presence of *inter alia* fluorescers, understand that the composition of D5/ex.3 is intended to be used for washing fabrics, and not as a mere rinse conditioner.

14.1.3 Since D5 taken alone does not lead the skilled person to a method as claimed, it remains to be assessed whether the claimed method was obvious to the skilled person seeking to solve the technical problem posed, having regard to the state of the art and/or common general knowledge.

14.2 Common general knowledge - document D15

14.2.1 According to D15 (page 289, lines 5-7) "*there is significant carry-over of wash water into the rinse cycle, typically around 10% of the wash liquor is entrapped by wet fabrics*", and (page 289, lines 9-13) "*[i]n the absence of solid suspending agents, significant precipitation of suspended soil can occur, leading to dingy build-up over time. Due to the polymeric nature of anti-redeposition agents, these materials can be effectively carried over into the rinse cycle, augmenting the soil suspension capability*

in the rinse cycle."

14.2.2 Therefore, it was common general knowledge to expect that anti-redeposition agents would be **carried over** from the main wash stage into the rinse cycle and would mitigate the build-up of dingy soil and the corresponding loss of whiteness occurring during a laundry wash process.

The skilled person would have thus expected that the presence of an anti-redeposition agent in the formulation of D5 (i.e. the dispersant FCNSA) would suffice for obtaining the desired whiteness benefits.

14.2.3 However, he/she would not have expected that further addition of the active agent components during the rinse could further improve such benefits as shown in example 2 of the patent in suit.

14.2.4 Furthermore, D15 teaches also that loss of whiteness can be counteracted in other ways, for example, by the use of bleaches (page 289, lines 14 to 21).

14.2.5 Therefore, common general knowledge as illustrated by D15 would not induce the person skilled in the art to add further active agent components during all rinse steps so as to keep certain level of active agent components in the rinse liquor throughout the entire rinse cycle.

14.3 Common general knowledge - document D1

14.3.1 In D1, a handbook of detergent also representing common general knowledge, the following is stated (page 59, chapter "C. Polymers", lines 10-14; page 63, chapter "F. Chelating agents", lines 1-2 and 6-8):

"Dispersancy and soil removal remains the primary role of polymers today ... Poly(acrylic acid) or poly(acrylic/maleic) copolymers are the most popular dispersants ..."

"Chelants are often formulated in detergents because metal ions in the wash are almost always detrimental to end performance ... metals often find their way onto fabric surfaces ... Both lead to a multicycle dinginess ..."

- 14.3.2 It was thus common general knowledge to add chelants, i.e. sequestering agents, as well as dispersants to a main laundry formulation in order to improve performance and thus implicitly also to provide whiteness benefits when washing white textiles.

However, D1 does not suggest the necessity or advantage of adding further active agent components during the rinse cycle steps.

- 14.3.3 The Board concludes that neither the cited prior art nor common general knowledge could have motivated the skilled person, without knowledge of the invention, to add additional active agent components in every rinse stage of a laundry washing process using the formulation D5/ex.3, instead of simply relying on the well-known benefits obtained thanks to the carry-over from the main wash, and to expect, thereby, a further increase of the whiteness benefits.

- 14.4 Document D4 taken as closest prior art

- 14.4.1 During the oral proceedings, the Appellant declared that the same line of arguments applied when taking

document D4 instead of D5 as the closest prior art.

14.4.2 In this respect, the Board observes that although D4 addresses specifically the problem of improving whiteness (or reducing whiteness loss) during laundering of white fabrics, the detergent formulations disclosed in the examples of D4 contain a sequestering agent (EDTA) but do not contain a dispersant (present in the formulation of D5/ex.3) as required by claim 1 at issue. The same reasons regarding non-obviousness exposed under 14.1-14.3, *supra*, thus apply even more so when document D4 is retained as the closest prior art.

15. In the Board's judgement the subject-matter of claim 1, and thus also the subject-matters of claims 2 to 4 dependent on claim 1, involve an inventive step (Articles 52(1) and 56 EPC).

Conclusion

16. The claims according to the Appellant's auxiliary request 5 are allowable.

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 on the basis of claims 1 - 4 of Auxiliary Request 5 as filed during oral proceedings and a description to be adapted thereto.

The Registrar:

The Chairman:



D. Magliano

B. Czech

Decision electronically authenticated