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**Datasheet for the decision
of 26 January 2021**

Case Number: T 1366/17 - 3.3.06

Application Number: 11773287.5

Publication Number: 2635666

IPC: C11D3/386, C11D3/40, C11D11/00

Language of the proceedings: EN

Title of invention:
A DETERGENT COMPOSITION HAVING SHADING DYES AND LIPASE

Patent Proprietor:
Unilever N.V.
Unilever PLC, a company registered in England and
Wales under company no. 41424

Opponent:
THE PROCTER & GAMBLE COMPANY

Headword:
DETERGENT COMPOSITION HAVING SHADING DYES AND LIPASE /
UNILEVER

Relevant legal provisions:
EPC Art. 54, 56, 83

Keyword:

Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - non-obvious solution

Decisions cited:

T 1227/13

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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

Case Number: T 1366/17 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 26 January 2021

Appellant: THE PROCTER & GAMBLE COMPANY
(Opponent) One Procter & Gamble Plaza
Cincinnati, Ohio 45202 (US)

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

Respondent: Unilever N.V.
(Patent Proprietor) Weena 455
3013 AL Rotterdam (NL)

Unilever PLC, a company registered in England and
Wales under company no. 41424
Unilever House
100 Victoria Embankment
London EC4Y 0DY (GB)

Representative: Brooijmans, Rob Josephina Wilhelmus
Unilever N.V.
Unilever Patent Group
Bronland 14
6708 WH Wageningen (NL)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 18 April 2017
rejecting the opposition filed against European
patent No. 2635666 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman L. Li Voti
Members: P. Ammendola
 J. Hoppe

Summary of Facts and Submissions

I. The appeal is against the decision of the opposition division to reject the opposition filed by the opponent (hereinafter the "appellant") against European patent no. 2 635 666.

II. The patent as granted comprises twelve claims.

Claim 1 reads:

*"1. A detergent compositions comprising:
(i) a surfactant,
(ii) a hydrophobic dye;
(iii) a direct dye;
(iv) an acid dye, and,
(v) lipase."*

Claims 2 to 9 define preferred embodiments of the composition of claim 1.

Claim 10 defines a method of laundering fabrics with the composition of claim 1.

Claim 11 defines a method of treating fabrics with a composition comprising defined concentrations of all the components (i) to (v) of claim 1.

Claim 12 defines the use of the composition of claim 1.

III. In its statement of grounds of appeal the appellant argued that the opposition division had erred in finding that the subject-matter of claim 1 was sufficiently disclosed and that the cited prior art did not anticipate or render obvious the claimed composition. In particular, the appellant based its objection of lack of inventive step on D5 (WO 2007/087257 A2) alone or in combination either with

common general knowledge or with D6 (WO 2006/032327 A1). The appellant also filed the new document D17 ("*Lipex[®] application in household detergents*" by Novozymes A/S) and an experimental report as Annex 1. In further letters the appellant also addressed other documents such as document D7 (WO 2008/017570 A1).

- IV. The patent proprietor (hereinafter the "respondent") replied by rebutting the appellant's submissions.
- V. Following the board's preliminary opinion including a copy of some pages from the HANDBOOK OF SYNTHETIC DYES AND PIGMENTS by K.M.SHAH (in the following "Annex B") both parties submitted further arguments and the respondent filed with letter of 7 December 2020 one set of amended claims labelled "Auxiliary Request 1".
- VI. At the oral proceedings before the board the grounds of opposition under Articles 100(b) EPC and 100(a) EPC in combination with articles 54 and 56 EPC were discussed. In particular, as regards novelty the appellant merely referred to its written objections and confirmed that the only novelty objection on file was the one in its grounds of appeal. As regards inventive step the appellant maintained that the subject-matter of claim 1 as granted lacked inventive step over D5 in combination with document D6. As regards the other inventive step objections on file, the appellant merely referred to its written submissions.
- VII. The final requests were as follows:

The appellant (opponent) requested that the decision under appeal be set aside and that the European patent be revoked and that the auxiliary request not be admitted.

The respondent (patent proprietor) requested that the appeal be dismissed (main Request) or, as an auxiliary measure, that the patent be maintained on the basis of the auxiliary request 1 filed with letter of 7 December 2020.

Reasons for the Decision

Main Request (patent as granted)

1. Sufficiency of disclosure (Article 100(b) EPC)
 - 1.1 The board stresses preliminarily that the patent in suit provides examples of the claimed composition and that the appellant filed neither experimental evidence nor detailed theoretical reasoning rendering plausible that a skilled formulator of cleaning compositions had necessarily to carry out an undue amount of experimental work in order to be able to realize further embodiments according to granted claim 1 (e.g. when performing variations of the examples in accordance with the other teachings in the patent in suit).
 - 1.2 The appellant rather argued that the three terms "*hydrophobic dye*", "*direct dye*" and "*acid dye*" that define the three different (shading) dyes of the composition of claim 1 would be vague and thus rendered impossible for the skilled person to identify other chemical entities (different from the specific examples thereof explicitly recited in the patent description and examples) that might fall under such terms and, thus, to carry out the claimed invention across the entire scope of claim 1.

In particular, the term "*hydrophobic dye*" was uncommon in the relevant technical field and lacked a precise definition in the patent description. In fact, it was found in decision T 1227/13 to lack clarity.

- 1.2.1 As to the relevance for the sufficiency of disclosure of the fact that "*hydrophobic dye*" is not a conventional term, the board stresses that a skilled person who needs to identify the subject-matter of a granted patent claim containing an uncommon or unclear term would and should attempt to construe such term in view of the remainder of the patent disclosure and of the common general knowledge.

In the present case, the patent in suit provides the following relevant information as to which shading dyes are meant to be the "*hydrophobic dye*" of claim

1:

- these shading dyes "*deposit on hydrophobic fabrics*" and, in particular are "*substantive to polyester fibres under normal domestic wash conditions*" (see in [0004] and [0037]);
- they are further described in [0037] as:
 - (i) "*organic compounds with a maximum extinction coefficient greater than 1000 L/mol/cm in the wavelength range of 400 to 750 nm*",
 - (ii) "*uncharged in aqueous solution at a pH in the range from 7 to 11*" and
 - (iii) "*devoid of polar solubilizing groups*" and in particular as compounds that do "*not contain any sulphonic acid, carboxylic acid or quaternary ammonium groups*";

- the preferred "*hydrophobic dyes*" are identified as belonging to the known classes of the "*Disperse dyes*" and "*Solvent dyes*" (see [0039]);
- further information as to the chemical nature of the preferred disperse and solvent dyes is given in paragraphs [0041] to [0048], thereby providing general formulae and the commercial names of several thereof, and
- the patent examples too comprise as "*hydrophobic dye*" one of these preferred "*Disperse dyes*".

1.2.2 In view of the above the skilled reader would conclude that the uncommon term "*hydrophobic dye*" in the context of the patent in suit identifies primarily the conventional "*Disperse dyes*" and "*Solvent dyes*" that are already known to be substantive to "*polyester*" and that also display the other properties recited in paragraph [0037], and it would have no difficulty in selecting a dye from the broad known classes of the disperse and solvent dyes following the teaching of the patent. Since this term may also embrace - as a not preferred option - other dyes, a skilled reader of the patent in suit aiming at carrying out even these further not preferred embodiments of the invention could identify further "*hydrophobic dyes*" in the dyes (if existing) that:

- (a) are organic compounds,
- (b) are able to act as shading dye on "*polyester*" fabrics under normal domestic wash conditions,
- (c) display a maximum extinction coefficient greater than 1000 L/mol/cm in the wavelength range of 400 to 750 nm,
- (d) remain uncharged in aqueous solution at a pH in the range from 7 to 11 and

(e) are devoided of any sulphonic acid, carboxylic acid or quaternary ammonium groups and similar polar groups capable of rendering them (water) soluble.

The board finds therefore that the patent disclosure provides the skilled person with abundant information as to the nature of the "*hydrophobic dye*" to be used to carry out the invention and even more information as to which compounds are the preferred "*hydrophobic dye*"s. The term "*hydrophobic dye*" is thus not so unclear that the skilled person, considering the whole teaching of the patent, would not be able to identify without problem shading dyes that fall under such term (and, of course also to exclude many other dyes that do not possess all the required characteristics). Thus, for the skilled reader of claim 1 "*hydrophobic dye*" certainly identifies a substantial number of shading dyes that can be used for carrying out the invention.

1.3 The appellant also objected that the conventional terms "*direct dye*" and "*acid dye*" - as well as the similarly conventional terms "*disperse dye*" and "*solvent dye*" that were identified in the patent description as the preferred "*hydrophobic dye*"s - are normally used by the dye producers to label their products according to the desired end use (see e.g. Annex B) and thus in a non-univocal way. This resulted in that the same dye might be sold and, therefore, also listed in the "Colour Index" (undisputedly the reference publication in the field), under more than one of these labels.

1.3.1 Even though the appellant has provided some evidence (in particular it referred to D1 = CAS Registry Number: 1330-38-7; D2 = CAS Registry Number: 4395-65-7 and D4 = CAS Registry Number: 128-95-0) of such non-univocal

labelling and alleged that this latter would affect a "reasonable" portion of the scope of claim 1, the board considers this evidence too limited to justify disregarding the undisputed fact that the terms "*direct dye*", "*acid dye*", "*disperse dye*" and "*solvent dye*" are conventionally used to identify different classes of dyes well known to the skilled person. This fact renders it plausible that any contradictory labelling of the same dye by producers must be the exception rather than the rule. Hence, it appears that this contradictory labelling can only plausibly affect a minor fraction of the shading dyes belonging to these conventional classes.

- 1.3.2 Also in this respect the board stresses again the undisputed fact that the patent in suit provides a plurality of examples and general formulae for these conventional classes of shading dyes. Hence, already the patent in suit enables to identify with certainty many alternatives for each of the conventional shading dyes that can be used to carry out the invention.

Moreover, for the skilled formulator who aims at carrying out the invention, the consequence of any non-univocal labelling e.g. in the "Colour Index" of further possible alternatives for these ingredients, appears to essentially be that a dye with non-univocal labelling could be used e.g. as "*direct dye*" ingredient in preparing one composition and as e.g. "*acid dye*" ingredient in preparing another composition. This ambiguity however does not render any of the corresponding compositions difficult to prepare.

It appears rather to raise the question whether compositions that can be made by using one of those non-univocally labelled dyes might fall or not under

the ambit of claim 1. However, this possible issue of clarity of the scope of claim 1 is certainly not an issue of sufficiency of disclosure, if only for the reason that the ambiguity, beside being certainly irrelevant for all the shading dyes explicitly identified as belonging to one of these classes, may reasonably be expected to only affect a very limited portion of the subject-matter of such claim.

1.3.3 A similar conclusion applies to the further appellant's argument concerning dyes which for example are possibly not yet classified under any of the known classes defined for example in Annex B.

1.3.4 The board therefore finds that the disclosure in the patent in suit enables the skilled person to identify many different (preferred, but possibly also non-preferred) embodiments of the shading dyes recited in claim 1, including those described by the uncommon term "*hydrophobic dye*", and that the inconsistent use of the conventional terms "*direct dye*" and "*acid dye*" (as well as of "*disperse dye*" and "*solvent dye*") is expected to only plausibly affect a very small fraction of the shading dyes that a skilled person could possibly take into consideration for carrying out the invention. Thus, the arguments submitted by the appellant to support the ground of opposition of insufficient disclosure cannot possibly be regarded as serious reasons for denying sufficiency of disclosure.

1.4 The board concludes that maintenance of the patent is not prejudiced by the ground of opposition under Article 100(b) EPC.

2. The alleged lack of novelty of granted claim 1 over D5 or common general knowledge (Article 100(a) EPC in combination with Articles 52(1) and 54 EPC)
 - 2.1 The appellant argued in essence (see point 5 of the grounds of appeal) that it was common general knowledge that, for example, disperse dyes (i.e. a preferred subset of hydrophobic dye) normally used to colour hydrophobic fabrics - such as e.g polyester - were washed off during the wash. Thus, the composition of claim 1 as granted would be anticipated by the wash liquor obtained when using the compositions of Examples 3 to 5 of D5 (which already comprise an acid dye and a direct dye and a lipase) in the washing of e.g. polyester garments coloured with a disperse dye.
 - 2.2 The board finds manifestly unconvincing the appellant's attempt to equate an (hypothetical) "intermediate" washing liquor of the prior art, i.e. that only formed during the actual washing (wherein dyes might possible have been released from the washed articles together with the "dirt") as a possible anticipation of the claimed "*detergent composition*". This latter conventional expression, even when interpreted very broadly, normally only identifies compositions that can be used to remove an unwanted "dirt" and, thus, it is apparent to the skilled reader of the patent that the "*detergent composition*" of granted claim 1 cannot comprise "dirt" and, thus, cannot be construed as embracing any "intermediate" washing liquor.

Nor has the appellant identified any teaching in the patent specification that could possibly justify such unusual construction of this conventional expression in the context of the patent in suit. Rather to the contrary, the patent seems to clearly distinguish

between the "detergent composition" and even the "initial" washing liquor: i.e. that formed upon by simply dissolving in water the "detergent composition" (see " ... when the fabrics are contacted with wash liquor having the detergent compositions ..." in paragraph [0031] of the patent, emphasis added by the board, whereby the "detergent composition" is implicitly but nevertheless clearly and correctly qualified as contained in - and not as the same as - the washing liquor with which the fabrics are contacted).

- 2.3 Finally, even assuming, for the sake of argument, that a person skilled in the art would consider that D5 implicitly discloses the use of the detergent compositions of Examples 3 to 5 for washing fabrics and/or garments, there is no direct and unambiguous disclosure in D5 that these compositions are used for washing coloured fabrics and/or garments, not to mention used specifically for washing polyester fabrics and/or garments dyed with at least one disperse dye.
- 2.4 For similar reasons, also the objection that the claims lack novelty over any standard detergent composition comprising lipase since washing any dyed fabric with such a detergent would necessarily cause the formation of a wash liquor having all the features of granted claim 1 (point 5.2 of the statement of grounds) cannot succeed as remarked by the respondent in its reply to the grounds of appeal.
- 2.5 The board concludes that the subject-matter of claim 1 is novel over the cited prior art.
- 2.6 For the same reasons given above also the subject-matter of the other claims is found to be novel.

2.7 Thus, the board concludes that the maintenance of the patent is not prejudiced by the ground of opposition under Article 100(a) EPC in combination with Articles 52(1) and 54 EPC.

3. Alleged lack of inventive step of the subject-matter of claim 1 (Article 100(a) EPC in combination with Articles 52(1) and 56 EPC)

3.1 Closest prior art

It is common grounds between the parties that the appropriate starting point for the assessment of inventive step may be any of the detergent compositions disclosed in Examples 3 to 5 of D5.

The board agrees with the appellant that each of these three detergent compositions contains, a surfactant, a lipase as well as a (shading) direct dye ("Direct Violet 9") and a (shading) acid dye ("Sulphonated zinc phthalocyanine"). Hence, the only ingredient of the composition of claim 1 not already present in this prior art is the hydrophobic (shading) dye.

3.2 The technical problem addressed in the patent in suit (also) in respect of the prior art disclosed in D5

In the patent in suit the technical advantage of the claimed composition vis-à-vis (also) the prior art disclosed in D5 (corresponding to US 2007191250 A1 cited in paragraph [0011]) is identified in paragraph [0012] as the reduction of the "*redeposition of soil*" (which the previous paragraphs in the patent in suit clearly describe as the known cause of the loss of perceived "whiteness" of white fabrics during washing)

that manifests itself as "higher reflectance and lower yellowing, especially over multiple washes on knitted cotton, knitted polyester and polyester fabrics". These two properties are clarified in the patent examples (see [0107] to [0113] and [0115] to [0119]) to correspond to lower " ΔR_{460} " values and lower " Δb " values.

Accordingly, the technical problem that the patent actually indicates as addressed and solved over the closest prior art can be more precisely expressed as suggested by the respondent, namely as the provision of detergent compositions comprising lipases and shading dyes, that provide (upon washing) lower redeposition of soil manifested as reduced "yellowing" and "drop of reflectance" on diverse substrates, in particular on repeated washing.

3.3 The solution

The solution to the posed technical problem offered in the patent in suit is a detergent composition that comprises a lipase and the three different sorts of (shading) dyes recited in claim 1.

3.4 Success of the solution

3.4.1 It is undisputed that the patent in suit contains no direct comparison with the prior art of departure disclosed in D5 that directly demonstrates that the posed technical problem has actually been solved also vis-à-vis this prior art.

The patent rather presents as proof of the advantage of the invention the experimental comparisons in Tables 2 and 4. For the board there is no doubt, as expressed in

its preliminary opinion, that the comparisons contained in table 4 convincingly show a lowered yellowing of the claimed compositions over the comparative ones. However, these comparisons are not conclusive since the tested composition according to claim 1 at issue comprises more shading dyes than the other compositions and no reflectance values are reported.

The board thus considers particularly relevant the results reported in Table 2 that provides both the " ΔR_{460} " and the " Δb " values (and thus measures the extent of both relevant properties, "drop of reflectance" and "yellowing", through which the advantage of the invention manifests itself). These measured values result from washing tests on different white fabrics in the presence of different sorts of soils (lipidic and not), repeated 1, 3 or 5 times. The tests were carried out either with a detergent composition according to the invention ("*Ex-1*") or with comparative detergent compositions. In particular, the Table allows to compare the results provided by "*Ex-1*" with those obtained with comparative compositions that differ from "*Ex-1*" only in that they comprise:

- neither lipase nor shading dyes (the "*Base*" composition),
- no shading dyes (the "*C-3*" composition), or
- no lipase (the "*C-1*" composition).

The board stresses preliminarily that the skilled person looking at these data would certainly be aware of the totally different mechanisms through which lipase and the shading dyes might be expected to possibly contribute to the aimed result (i.e. maintenance of "whiteness"). Indeed, while the lipase attacks the lipids present on the fabrics and/or in the

washing liquor, the shading dyes deposit on the fabrics and provide the washed fabrics with a colour hue that only masks to the eye of the consumer the "yellowing" caused during the washing.

Hence, and in spite of the fact that the values reported in Table 2 for each composition (even those reported for the "Base" composition) appear to vary substantially from test to test in a rather random / unpredictable way, they show that in most of the tests, and in particular always in the tests with the maximum repetition of washes (5), the example of the invention results in substantially lower " ΔR_{460} " values in comparison to those provided by the composition with lipase but no shading dyes (the "C-3" composition) for all types of hydrophilic and hydrophobic substrates tested. As convincingly argued by the respondent, this fact is surprising because the skilled person would normally expect that shading dyes (that are present in "Ex-1" but not in "C-3") may cause a "*drop in reflectance*". This is because of the common general knowledge that any colouring, as e.g. the blue or green hue increasingly produced by the shading dyes deposited thereupon during washing, is expected to reduce the reflectance of the fabrics. The board notes that this consideration based on common general knowledge is not only undisputed by the appellant, but even experimentally confirmed by the " ΔR_{460} " values reported in Table 2 for the comparative composition "C-1" (containing shading dyes and no lipase) which are indeed comparable to or clearly higher than those reported for the "Base" composition. Thus, while the relatively high " ΔR_{460} " reported in Table 2 for the comparative example "C-1" (containing the three dyes) appears consistent with the expectations of the skilled person, the fact that on the same substrates the

" ΔR_{460} " values for "Ex-1" are substantially lower than those reported for "C-3" (from which "Ex-1" only differs for the additional presence of the three dyes) is unexpected.

The board concludes that the data in the patent in suit render plausible that at least the levels of "drop of reflectance" provided by the composition according to claim 1 at issue are in general surprisingly low. Thus, these data also render plausible that these surprisingly low levels of "drop of reflectance" are to be lower than those to be expected from the compositions of D5, especially because this document is silent about the possible use of any hydrophobic dye (which are not substantive on cotton) and does not concern the treatment of hydrophobic substrates like polyester fabrics.

Moreover the " Δb " values of the composition of Example 1 show a clear reduction of the yellowing compared to all other tested compositions.

Hence, the patent in suit renders it plausible that the claimed composition actually solves vis-à-vis this prior art the technical problem addressed in the patent in suit.

- 3.4.2 To prove the contrary (and, thus, to justify the conclusion that the technical problem actually solved by the subject-matter of claim 1 should be reformulated as the provision of a mere alternative to the prior art disclosed in D5) the appellant has presented three distinct arguments.

Firstly, the experimental comparison in Annex 1 filed with the grounds of appeal, would prove that the

claimed composition would provide more "yellowing" to cotton substrates than a similar composition in accordance with D5 in which there were only an acid and a direct shading dye, whereby the amount of this latter dye had been increased to compensate for the missing amount of hydrophobic dye (so as to keep the overall amount of dye the same in all the tests).

Secondly, the data in the patent in suit would also be suggestive that the same levels of "yellowing" and "*drop of reflectance*" provided by the claimed composition would also be provided by the compositions of Examples 3 to 5 of D5 at least on the fabrics onto which the acid dye and the direct dye are known to preferably deposit. The technical advantage of the additional presence of hydrophobic dye would therefore at most be the predictable extension to the hydrophobic polyester fabrics of the same effects that the compositions of D5 already provide e.g. on cotton fabrics.

Thirdly, the data in Table 2 of the patent in suit would be too limited and somewhat contradictory and would not show a clear trend towards the alleged improvements so not to render plausible the successful solution of the posed problem across the whole ambit of claim 1 under dispute.

- 3.4.3 As to the relevance of the data in Annex 1 the board finds that it does not allow any sound conclusion as to whether e.g. the level of "yellowing" produced by the prior art of departure (with only two shading dyes) is comparable to, lower or higher than that provided by the composition of claim 1. Indeed, the results reported in this Annex 1 appear the predictable consequence of the fact that the example chosen for

representing the prior art comprises an amount of dye substantive to the substrate used (cotton in both cases) that is much larger than that present in the example according to claim 1 under dispute. Moreover this report does not contain any other terms of comparisons as reported in the examples of the patent and does not indicate any variation of the reflectance.

- 3.4.4 The board finds also unconvincing the further argument that the experimental data in Table 2 of the patent in suit would render plausible that also the prior art detergent composition would produce (at least on the substrates to which the direct dye and the acid dye are substantive) the same levels of "*reduced yellowing*" and "*drop of reflectance*" provided by the claimed composition. The board stresses in particular that since the excellent " ΔR_{460} " values of "*Ex-1*" are surprisingly also to be attributed to the shading dyes, it may not be predicted to which extent the hydrophobic dye contributes to their occurrence on e.g. cotton fabrics too. Nor has the appellant filed experimental data or sound theoretical reasoning that would justify the conclusion that the same surprising " ΔR_{460} " values that Table 2 reports for "*Ex-1*" on cotton (even containing a hydrophobic dye not substantive on cotton) would already be displayed on the same fabrics by a composition in accordance with D5 only containing the acid dye and the direct dye (in the same amounts as in "*Ex-1*"). Hence, there is no evidence on file that could also justify the conclusion that the sole effect of the hydrophobic shading dye in the claimed composition would exclusively be that of ensuring on polyester fabrics the same benefits that the composition of D5 would allegedly already provide on other fabrics and thus had to be expected.

3.4.5 As to the appellant's further argument that the successful solution of the posed technical problem across the ambit of claim 1 would not be rendered plausible by the limited and contradictory data in Table 2 of the patent, the board considers it manifestly insufficient. In fact, in the present case the patent data show in the board's view a convincing effect, especially after 5 washes, for all the compositions according to claim 1 at issue and this on nearly all the fabrics tested. The burden of proof thus lies clearly on the appellant that has not provided in this respect any experimental evidence that could support its argument that such an effect would not be credible across the entire scope of claim 1.

3.4.6 The board finally also stresses that the disclosure in D5 is too incomplete/vague to justify any prediction on the level of "*drop of reflectance*" (but also of yellowing) possibly produced in this prior art.

3.4.7 The board concludes therefore that the subject-matter of granted claim 1 has successfully solved the posed technical problem (identified above, 3.2) vis-à-vis the prior art of departure.

3.5 Inventiveness

3.5.1 It is apparent from the above conclusion as to the **surprising** nature of the combination of lower "*drop of reflectance*" and lower "*yellowing*", achieved by the claimed composition, that the limited disclosure of D5 not suggesting such a possible improvement neither *per se* nor in combination with the common general knowledge may possibly have rendered obvious for the skilled person to solve the posed technical problem by adding a hydrophobic dye to the detergent compositions of D5. In

this respect the board also stresses that the disclosure in the second paragraph of page 10 of D5 (that it is possible to combine the fabric hueing agents mentioned in D5) referred to by the appellant also does not justify any prediction as to whether the level of "yellowing" and of the "drop of reflectance" possibly achieved when using one of the compositions of Examples 3 to 5 of D5 (e.g. on a cotton substrate) would or not be negatively affected by the addition thereto of other shading dyes not mentioned in D5 (such has the hydrophobic dyes).

- 3.5.2 The appellant in its submissions on inventive step also referred to D6 (page 1, line 24 to page 2, line 7), which discloses the possibility of using a combination of acid, direct and solvent (hydrophobic) dye in order to maintain and enhance the whiteness appearance of polyester-cotton fabrics. However, this document does not contain any suggestion that the incorporation of the solvent dye might lead to a "drop of reflectance" and lower "yellowing" as convincingly shown in the patent also for cotton fabrics not containing polyester.

Thus, the combination of D5 with D6 cannot contribute in rendering obvious the claimed composition.

- 3.5.3 The appellant cited in writing also D7 to be considered in combination with D5. Moreover it cited D17 and other documents representing common general knowledge as regards in particular the effect of the lipase on washed fabrics, which documents are clearly irrelevant since lipase is not a distinctive feature of the claimed composition.

However, none of the cited documents provide any information possibly suggestive that the addition of a hydrophobic dye to the composition of the closest prior art might lower yellowing and "*drop of reflectance*" as convincingly shown in the patent also for cotton fabrics not containing polyester. Thus, the combination of D5 with any of these citations cannot possibly contribute in rendering obvious the claimed composition.

Hence, there is no need to decide on the admittance of D17 which was objected by the respondent.

- 3.5.4 Therefore, the available prior art is found not to render obvious to solve the technical problem identified above by adding to the prior art of departure a hydrophobic dye. Thus, the subject-matter of claim 1 at issue involves an inventive step.
4. The same reasons given above apply also to the subject-matter of the other claims (all dependent on claim 1 or relating to the use of the composition defined in such claim or to methods using such compositions). Therefore they also involve an inventive step.
5. Thus, the board concludes that maintenance of the patent is also not prejudiced by the ground of opposition under Article 100(a) EPC in combination with Articles 52(1) and 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



A. Pinna

L. Li Voti

Decision electronically authenticated