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**Datasheet for the decision
of 24 April 2014**

Case Number: T 2112/11 - 3.3.10

Application Number: 05009680.9

Publication Number: 1719498

IPC: A61K8/46, A61Q5/10

Language of the proceedings: EN

Title of invention:

Oxidative hair dye composition comprising acidic direct dye

Patent Proprietor:

Kao Germany GmbH

Opponent:

Henkel AG & Co. KGaA

Headword:

Relevant legal provisions:

EPC Art. 54(2), 56

Keyword:

Novelty - (no) - main request and auxiliary request II
Inventive step - (no) - auxiliary request I

Decisions cited:

T 0020/81, T 0197/86

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 2112/11 - 3.3.10

**D E C I S I O N
of Technical Board of Appeal 3.3.10
of 24 April 2014**

Appellant: Henkel AG & Co. KGaA
(Opponent) VTP Patente
Henkelstrasse 67
40589 Düsseldorf (DE)

Respondent: Kao Germany GmbH
(Patent Proprietor) Pfungstädter Strasse 92-100
64297 Darmstadt (DE)

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted on
3 August 2011 concerning maintenance of the
European Patent No. 1719498 in amended form.

Composition of the Board:

Chairman: P. Gryczka
Members: R. Pérez Carlón
F. Blumer

Summary of Facts and Submissions

- I. The appellant (opponent) lodged an appeal against the decision of the opposition division that, taking into account the amendments made, European patent No. 1 719 498 in the form of the then pending auxiliary request 1 fulfilled the requirements of the EPC.
- II. The independent claims of said request, which is the main request in appeal proceedings, read as follow:

Claim 1: *"Process for colouring hair, characterized in that a composition comprising at least one oxidation dye precursor, at least one acidic direct dye selected from Acid Red 52, Acid Violet 2, Acid Red 33, Acid Orange 4, Acid Red 27 and Acid Yellow 10 at a concentration of 0.5 to 7.5% by weight calculated to total composition excluding oxidizing agent, with the condition that it does not comprise cationic direct dye, is mixed with a composition comprising hydrogen peroxide when thus mixed composition has a pH between 6.8 and 12, and applied onto hair and kept on the hair for a period between 15 and 45 min at ambient temperature and/or a temperature between 30°C and 45°C and rinsed off from hair."*

Claim 12: *"Use of the process wherein a composition comprising at least one oxidation dye precursor, at least one acidic direct dye selected from Acid Red 52, Acid Violet 2, Acid Red 33, Acid Orange 4, Acid Red 27 and Acid Yellow 10, with the condition that it does not comprise cationic direct dye, is mixed with a composition comprising hydrogen peroxide when thus mixed composition has a pH between 6.8 and 12, and applied onto hair and kept on the hair for a period between 15 and 45 min at ambient temperature and/or a*

temperature between 30°C and 45°C and rinsed off from hair for achieving intensive, long lasting and vibrant colours on keratin fibers, especially hair."

- III. Notice of opposition was filed on the ground that the subject-matter of the patent as granted was not novel and did not involve an inventive step (Article 100(a) EPC).
- IV. The documents filed during the opposition proceedings included the following:
- D2: WO 2004/058204
- V. The opposition division referred to the last claim of the then pending auxiliary request 1 as claim 11, which would have been the correct numbering. For reasons of consistency, the board uses the numbering used in the requests on file (claim 12). The opposition division decided that the subject-matter of said claim 12, which was directed to the use of a process for achieving intensive, long-lasting and vibrant colours, was new, as D2 disclosed the process as in claim 1, but not its use to achieve said effect. The subject-matter of both independent claims of auxiliary request 1 was inventive over D2, which was the closest prior art, since there was no hint in the prior art to the claimed use.
- VI. As a main request, the respondent (patent proprietor) requested that the appeal be dismissed and that the patent be maintained on the basis of the request upon which the patent was maintained by the opposition division. During the oral proceedings before the board, which took place on 24 April 2014, the respondent filed auxiliary requests I and II. Auxiliary request I differs from the main request only in that it does not

contain independent claim 12, whereas the sole claim of auxiliary request II is identical to independent claim 12 of the main request.

VII. The arguments of the appellant relevant for the present decision were the following:

Document D2 disclosed the use of a process as defined in claim 12 of the main request for achieving a bright coloration after hair dyeing (Rezeptur 10 on page 52, page 53, composition comprising hydrogen peroxide on page 37). Although claim 12 further required that the effect of the dyeing was "vibrant", the use of said process remained unchanged with respect to that of D2, with the consequence that the subject-matter of claim 12 of the main request and of the sole claim of auxiliary request II was not novel.

Document D2 was the closest prior art for the subject-matter of claim 1 of auxiliary request I. D2 disclosed a process which differed from the subject-matter of claim 1 in that the amount of acidic direct dye of the first composition was lower than required by claim 1. Since there was no direct comparison between the claimed process and that of D2, the problem underlying the claimed invention was merely the provision of a further process for colouring hair, and the solution, which was a process in which one of the compositions contained higher amounts of acidic direct dye, represented a non-purposive selection within the suitable amounts of these types of compound for colouring compositions already known from D2 (0.01 to 20%, see page 21, line 11), with the consequence that the subject-matter of claim 1 of auxiliary request I was not inventive.

VIII. The arguments of the respondent relevant for the present decision were the following:

Document D2 disclosed a process for colouring hair, but was silent about the vibrancy of the colours obtained, and for this reason the use of said process for achieving vibrant colours on keratin fibres forming the subject-matter of claim 12 of the main request and of the sole claim of auxiliary request II was novel.

Document D2 was the closest prior art for the process forming the subject-matter of claim 1 of auxiliary request I. D2 failed to disclose the amount of acidic direct dye required by claim 1. The problem underlying the claimed invention was providing a process for improving hair colour in terms of intensity, long-lastingness and vibrancy. The problem was convincingly solved by the use of a process carried out with higher amounts of acidic direct dye in the light of the examples in the patent in suit. The claimed solution was not obvious, since document D2 only disclosed that direct dyes had the role of improving shading and failed to disclose any effect due to these compounds in terms of colour vibrancy. The subject-matter of claim 1 of auxiliary request I was thus inventive.

IX. The final requests of the parties were the following:

- The appellant requested that the decision under appeal be set aside and that European patent No. 1 719 498 be revoked.
- The respondent requested that the appeal be dismissed or, subsidiarily, that the patent be maintained on the basis of auxiliary request I or auxiliary request II, both as filed during the

oral proceedings before the board.

- X. At the end of the oral proceedings, the decision was announced.

Reasons for the Decision

1. The appeal is admissible.

Main request - novelty:

2. Claim 12 of the main request is directed to the use of a process for achieving intensive, long-lasting and vibrant colours on keratin fibres. The process requires that a composition comprising at least one oxidation dye precursor and at least one acidic direct dye but no cationic direct dye is mixed with a composition comprising hydrogen peroxide and that the composition thus obtained, which has a defined pH, is applied onto hair, kept thereon for a defined period and/or at a defined temperature, and rinsed off.
3. Document D2 discloses a process comprising mixing a composition (page 53, line 2) comprising Acid Red 52, Acid Red 33 (see page 52, Rezeptur 10, entries 23-24) and various oxidation dye precursors (entries 12-17) which lacks cationic direct dyes and has a pH of 9.5 (page 36, penultimate line) with a composition which contains hydrogen peroxide (page 37, line 8), applying the resulting mixture onto hair (page 53, line 3), keeping it thereon for 30 minutes at room temperature (page 53, line 4) and rinsing it off (page 53, line 5). Document D2 thus discloses a process fulfilling all the process features required by claim 12 of the main request. These facts were not disputed.

It was further undisputed that the use of the process of D2 led to obtaining keratin fibres with lasting colours (page 2, line 12) having sufficient intensity (page 2, line 9).

Lastly, it was not disputed that document D2 did not explicitly mention that the process for colouring hair led to obtaining vibrant colours on keratin fibres.

4. The respondent argued that D2, although relating to the same process, did not disclose that this process allowed vibrant colours to be obtained on keratin fibres. Thus, the use of such a process for obtaining said effect was necessarily novel.
5. However, the use of the process defined by claim 12, namely "achieving vibrant colours on keratin fibres", merely characterises the colours resulting from the dyeing process known from D2 as "vibrant", but fails to allow said process to be used for a purpose other than colouring hair in the same manner as disclosed in D2 and with the same results obtained therein. For this reason, the claimed use does not open the way to a new activity (i.e. a new use), with the consequence that the subject-matter of claim 12 of the main request is not novel and this request is not allowable.
6. The respondent has argued that document D2 only disclosed the use of direct dyes for improving the shading of the coloration, whereas claim 12 related to the use of direct dyes for achieving intensive, long-lasting, vibrant colours. Such a use of direct dyes was thus novel.

However, claim 12 is not directed to the use of direct dyes for achieving the required result, but to the use

of a process therefor, which is not novel for the reason explained in the previous point. This argument must therefore fail.

Auxiliary request I - inventive step:

7. Claim 1 of auxiliary request 1 is directed to a process for colouring hair in which a composition comprising at least one oxidation dye precursor and at least one acidic direct dye at a defined concentration is mixed with a composition comprising hydrogen peroxide and the composition thus obtained, which has a defined pH, is applied onto hair, kept thereon for a defined period and/or at a defined temperature, and rinsed off.
8. Closest prior art:

The parties and the opposition division considered D2 as the closest prior art, and the board sees no reason to differ.

Document D2 discloses a process for colouring hair comprising mixing a composition containing 0.1% of Acid Red 52, 0.1% of Acid Red 33 (see page 52, Rezeptur 10, entries 23-24) and oxidation dye precursors (entries 12-17), which does not comprise any cationic direct dye and has a pH of 9.5 (page 36, penultimate line), with a second composition (page 53, line 2) which contains hydrogen peroxide (page 37, line 8), applying the resulting mixture onto hair (page 53, line 3), keeping it thereon for 30 minutes at room temperature (page 53, line 4) and rinsing it off (page 53, line 5).

Document D2 fails to disclose a process for colouring hair with a composition comprising acidic direct dye at a concentration of 0.5 to 7.5% by weight calculated to

total composition excluding oxidising agent as required by claim 1 of auxiliary request I.

These facts were not disputed.

9. Technical problem underlying the invention:

The respondent defined the technical problem underlying the claimed invention as providing a process for improving the coloration of hair in terms of intensity, long-lastingness and vibrancy.

10. Solution:

The solution proposed by claim 1 of auxiliary request I is a process characterised in that the amount of acidic direct dye in the first composition is from 0.5 to 7.5% by weight calculated to total composition excluding oxidising agent.

11. Success:

11.1 The respondent relied on the data in the patent in suit for showing that the technical problem underlying the claimed invention had been effectively solved.

According to established jurisprudence, in cases where comparative tests are chosen to demonstrate an inventive step with an improved effect over a claimed area, the nature of the comparison with the closest prior art must be such that the effect is convincingly shown to have its origin in the characterising feature of the invention. For this purpose, it may be necessary to modify the elements of comparison so that they differ only by such characterising features (see T 197/86, OJ EPO 1989, 371, Reasons 6.1.2 and 6.1.3).

The respondent relied on the results obtained in the presence of acidic direct dye (examples II-IV) and in its absence (example I), whereas the closest prior art composition 10 of D2 contains acidic direct dye, albeit at a lower concentration. For this reason, these data do not provide a comparison with the closest prior art, with the consequence that no improvement can be considered shown.

- 11.2 The respondent argued that the concentration range had been introduced into claim 1 only due to novelty issues. The results showed that there was an effect linked to the presence of acid direct dyes, which must necessarily be greater at higher concentrations, and for this reason the data in the patent in suit proved that an improvement over the process of D2 had been achieved.

However, the patent in suit further provides examples in which the concentration of acidic direct dye is comparable to that of the process disclosed in D2 (see examples XI to XV). According to these examples, "similar results" were obtained (paragraph [53]). These data hence do not show any improvement linked to a higher concentration of acidic direct dye. This argument is therefore dismissed.

- 11.3 The board thus concludes that the alleged effect of improving hair colour in terms of intensity, long-lastingness and vibrancy has not been credibly solved by the subject-matter of claim 1.

12. Reformulation of the technical problem underlying the invention:

According to the case law of the boards of appeal, alleged but unsupported advantages cannot be taken into consideration in determining the problem underlying the invention (see e.g. decision T 20/81, OJ EPO 1982, 217, Reasons 3, last paragraph). As the alleged improvement of hair colour in terms of intensity, long-lastingness and vibrancy lacks the required support, the technical problem as defined above needs reformulation.

Thus, in view of the teaching of D2, the problem underlying the claimed invention is to provide a further process for obtaining intensive, long-lasting and vibrant colours on keratin fibres.

13. Solution:

The solution proposed by claim 1 of auxiliary request I is a process characterised in that the amount of acidic direct dye in the first composition is from 0.5 to 7.5% by weight calculated to total composition excluding oxidising agent.

14. Success:

It is not disputed that this technical problem has been solved by the process forming the subject-matter of claim 1, in the light of the data provided in the patent in suit.

15. Finally, it remains to be examined whether the claimed solution was obvious for the person skilled in the art.

15.1 Document D2 discloses that the amount of direct dye can be selected between 0.01 and 20% by weight with respect to the total amount of colorant (page 21, line 11). The claimed amount thus falls within the limits known from

D2, so the skilled person would expect a process using the quantities defined in claim 1 to lead to the same result. Furthermore, changing the amounts of the dyes in a process for colouring hair is an obvious option for achieving an alternative.

The subject-matter of claim 1 of auxiliary request I is therefore not inventive in the sense of Article 56 EPC, with the consequence that this request is not allowable.

- 15.2 The respondent argued that document D2 disclosed multiple examples, of which six did not contain any direct dye, two contained cationic direct dyes, one contained both acid and cationic direct dyes and only example 10 contained acidic direct dye and no cationic direct dye, as required by claim 1. In the light of this information, there was no reason to choose any particular type of dye, let alone at the concentration defined in claim 1.

However, example 10 of D2 already discloses a process in which acidic direct dyes are used for solving the same problem as the patent in suit, and this particular embodiment represents the closest prior art. This argument is therefore dismissed.

Auxiliary request II:

16. The sole claim of auxiliary request II is identical to claim 12 of the main request and is not novel for the same reasons (see points 2. to 6.), with the consequence that this request is also not allowable.

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:



T. Buschek

P. Gryczka

Decision electronically authenticated