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Datasheet for the decision of 24 November 2023

Case Number: T 0336/20 - 3.3.10

Application Number: 08014894.3

Publication Number: 1992388

IPC: A61Q5/10, A61K8/46, A61K8/41, A61K8/49

Language of the proceedings: EN

Title of invention:
PROCESS FOR COLOURING HAIR BASED ON ACIDIC DIRECT DYES

Patent Proprietor:
Kao Germany GmbH

Opponent:
L'OREAL

Headword:
PROCESS FOR COLOURING HAIR / KAO

Relevant legal provisions:
EPC Art. 56
EPC R. 99(2)

Keyword:
Admissibility of appeal - yes
Inventive step - (no)

Decisions cited:

Catchword:

Europäisches Patentamt
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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 0336/20 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 24 November 2023

Appellant: (Opponent)	L'OREAL 14 rue Royale 75008 Paris (FR)
Representative:	Casalonga Bayerstraße 71/73 80335 München (DE)
Respondent: (Patent Proprietor)	Kao Germany GmbH Pfungstädter Strasse 92-100 64297 Darmstadt (DE)
Representative:	Grit, Mustafa KPSS - Kao Professional Salon Services GmbH Pfungstädterstraße 92-100 64297 Darmstadt (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 3 December 2019 rejecting the opposition filed against European patent No. 1992388 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	P. Gryczka
Members:	J.-C. Schmid
	T. Bokor

Summary of Facts and Submissions

I. The appellant (opponent) lodged an appeal against the decision of the opposition division rejecting the opposition against European patent No. 1 992 388, independent claim 1 thereof reading as follows:

"1. Process for colouring hair characterized in that a composition comprising at least one oxidation dye precursor selected from 2,4,5,6-tetraaminopyrimidine, 4-aminophenol, 4-amino-3-methylphenol, 2,5-diamino-toluene and 2-(2,5-diaminophenyl) ethanol and 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 total concentration of anionic dye in the range of 0.5 to 7.5% by weight calculated to total composition, excluding oxidizing agent, with the condition that the composition does not comprise cationic direct dye, is mixed with a composition comprising hydrogen peroxide, thus mixed composition has a pH between 6.8 and 12, and is applied onto hair and is kept on the hair for a period between 15 and 45 min at ambient temperature and/or at a temperature between 30 and 45°C and rinsed off from hair."

II. In the opposition proceedings the appellant requested the revocation of the patent-in-suit in its entirety on the grounds of lack of inventive step (Article 100(a) EPC), based *inter alia* on document (1):

WO-A-2004/058204.

According to the opposition division, document (1) represented the closest state of the art.

The subject-matter of claim 1 of the patent in suit differed from example 10 of document (1) in that the process required a total concentration of anionic dye in the range of 0.5 to 7.5% by weight calculated to total composition, excluding oxidizing agent.
The technical problem was the provision of a hair colouring process achieving more intense, more vibrant colorations. The experimental report filed by the patent proprietor with the letter dated 9 March 2015 (document (4)) showed that the process of claim 1 gave a solution to this problem. The experimental report filed by the opponent with the letter dated 8 August 2019 (document (5)) was not a valid comparison and hence could not show that the problem was not solved.

Document (1) disclosed amounts of 0.01-20 %wt. for direct dyes, but without indicating any specific amount for anionic dyes. This document failed to disclose that selecting a specific range of anionic dyes could enhance coloration vibrancy. The claimed solution was therefore not obvious to the skilled person in view of document (1). The subject-matter of claim 1 of the patent as granted thus involved an inventive step.

III. The appellant contested the conclusions of the opposition division on the issue of inventive step and submitted that the technical problem could only be seen in the provision of a further process and the proposed solution was obvious in the light of document (1), also in view of further tests shown in document (6) filed with the statement setting out the grounds of appeal.

IV. The patent proprietor (respondent) submitted that the appeal should be rejected as inadmissible as the statement setting out the grounds of appeal did not provide reasons why the the contested decision was not

correct and contested the appellant's view that the claimed subject-matter lacked an inventive step over document (1).

V. With a communication pursuant to article 15(1) RPBA, the board set out its preliminary opinion that the appeal was admissible and that the process of the granted claim 1 was obvious in view of document (1).

VI. With a letter dated 15 May 2023, the respondent announced that they would not attend the oral proceedings scheduled for 12 June 2023. Thereafter the board cancelled the oral proceedings.

VII. The appellant (opponent) requests in writing that the decision under appeal be set aside and the patent be revoked.

VIII. The respondent (patent proprietor) requests in writing that the appeal be rejected as inadmissible or that the appeal be dismissed. They also request not to admit document (6) into the appeal proceedings.

Reasons for the Decision

Admissibility of the appeal

1. The statement setting out the grounds of appeal indicates why the appellant disagrees with the decision of the opposition division. In particular, the appellant explained why the experimental report filed by the respondent (document (4)) could not be taken into account for inventive step, and hence that the technical problem should be reformulated as the provision of a further method for colouring hair.

Consequently, the statement setting out the grounds of appeal gives reasons why the decision of the opposition division should be set aside. Whether or not these reasons and the related evidence can be admitted under the RPBA and/or convincing has no bearing on the admissibility of the appeal.

Hence, the board arrives to the conclusion that the appeal is admissible.

Inventive step

Closest prior art to the invention.

2. Document (1) represents the closest prior art to the invention, which finding is agreed to by the parties.

2.1 This document discloses a process for colouring hair with oxidative dyes (claim 1 and 11), where the coupler comprises a m-phenylene derivative of formula (I).

The dyeing compositions of document (1) may contain oxidative bases such as 2,5-diaminotoluene (p-toluyldiamin); 2-(2,5-diaminophenyl)ethanol (2-(β-hydroxyethyl)-p-phenylendiamin); 4-aminophenol, 4-amino-3-methylphenol (page 6, lines 3 and 4, page 7, last paragraph, page 10, last paragraph).

The dyeing compositions may also contain direct dyes preferably in an amount of 0.01 to 20% by weight, based on the total colouring agent (page 6, lines 3 and 4, page 21, penultimate paragraph). The direct dyes include dyes such as Acid Red 33, Acid Red 52, (page 18, last paragraph).

The colouring composition is conveniently prepared immediately prior to use by mixing the preparation containing the colouring agent with an oxidising agent. The resulting ready-to-use hair dye preparation has a pH of between 6 and 12, preferably between 9 and 12. Application temperatures are preferably between 15 and 40°C. After an exposure time of 5 to 45 minutes, the hair dye is removed from the hair by rinsing (page 31, second paragraph).

2.2 Composition 10 disclosed on page 52 comprises the 2,4-bis-(2'-hydroxyethyl) amino-6-methylanisol as the coupler of formula (I). It further comprises oxidative dye precursors including 2,5-diamino-toluene and 2-(2,5-diaminophenyl)ethanol. This composition further comprises 0.1 wt.% of Acid Red 52 and 0.1 wt.% of Acid Red 33 (anionic dyes). It also comprises 0.1 wt.% of HC Red 1, 0.05 wt.% of HC Red 54, 0.05 wt.% of 4-amino-3-nitrophenol and 0.05 wt.% of 1,4-diamino-2-nitrobenzene, which are neutral direct nitro dyes.

Composition 10 is mixed with the oxidising agent and applied to hair strands (Karling, natural white). After a reaction time of 30 minutes at room temperature, the fibres are thoroughly rinsed with water, dried with a hair dryer (page 53, first paragraph). The hair coloration obtained by this composition is vibrant red (see last entry of the table on page 53).

Technical problem to be solved

3. According to the respondent, the technical problem to be solved by the claimed process is to improve the vibrancy of the coloration.

Proposed solution

4. The solution to this technical problem is the process according to claim 1 as granted, characterized by the presence of a total concentration of anionic dye in the range of 0.5 to 7.5% by weight calculated to total composition, excluding oxidizing agent.

Success

5. To show that the technical problem is solved by the claimed process, the respondent refers to the test report disclosed in document (4), wherein compositions based on 2,4,5,6-tetraaminopyrymidine as oxidative dye precursor and 2-methyl resorcinol as coupler, and comprising different amounts of anionic direct dyes are compared.

5.1 However, the dye compositions compared do not comprise 2,5-diamino-toluene and/or 2-(2,5-diaminophenyl)ethanol as an oxidation dye precursor, which are used in composition 10 of document (1), let alone a coupler of formula (I) required by the dye compositions disclosed in document (1) (see claim 1). Accordingly, the comparative tests described in document (4) do not allow the conclusion that the compositions used in the claimed process provide improved colour vibrancy compared to the compositions of document (1). Consequently, the respondent failed to show that the technical problem has been solved by the claimed composition.

5.2 Furthermore, the appellant relies on the experimental test report of document (5) for proving that the claimed process does not solve the technical problem.

In this experimental test report it is shown that the quantitative replacement of the 0.30% wt.% total amounts of the neutral direct dyes, namely 0.15 wt.% HC red 1, 0.05 wt.% HC red 54, 0.05% wt.% 4-amino-3-nitrophenol and 0.05 wt.% 1,4-diamino-2-nitrobenzene, by 0.30% wt.% of anionic direct dyes (Acid Red 52 and Acid Red 33) which are already present with a content of 0.2 wt.% in composition 10 does not result in an improvement in colour vibrancy (see comparison between composition A representing the composition of example 10 of document (1) and composition B according to claim 1 of the patent-in-suit). Composition B leads to coloration with even less colour vibrancy than composition A (3.45 versus 4.15, respectively).

5.3 The opposition division found that the experimental report of document (5) did not make plausible that the effect shown is due to the distinguishing feature, the concentration of anionic (direct) dye in the range of 0.5 to 7,5% by weight, because the claimed composition B does not comprise the neutral direct dyes present in composition A, thus creating a further difference.

5.4 However, a further difference is compulsory. If, in the composition according to the invention, the direct anionic dyes Red Acid 52 and Red Acid 33 had been added in addition to the formulation of composition 10 of document (1) in order to reach the required claimed content of anionic direct dyes, this would also have created another difference, namely the total amount of direct dyes in the compared compositions would no longer have been the same.

5.5 The Board considers that the comparison made in document (5), wherein the neutral direct dyes present in composition A are replaced by the same content of

anionic direct dyes is proper, because the comparison is carried out by keeping constant the content of direct dyes present in the compared compositions. This comparison shows that no improvement is achieved by the claimed process when compared to the closest prior art.

5.6 The Board therefore concludes from the above that the problem of improving the colour vibrancy obtained by the dyeing composition of document (1) is not solved by the claimed process.

Reformulation of the technical process

6. For these reasons, the objective technical problem must be reformulated as the provision of an alternative process for colouring hair.

Obviousness

7. Finally, it remains to be decided whether or not the proposed solution to this objective technical problem is obvious in view of the state of the art, namely whether it is obvious in the light of document (1) to use a dyeing composition having a total concentration of anionic dyes in the range of 0.5 to 7.5% by weight calculated to total composition, excluding oxidizing agents in order to provide an alternative process for colouring hair.

Document (1) discloses that direct dyes are preferably comprised in an amount of 0.01 to 20% by weight, based on the total colouring agent, i.e. excluding the oxidising agent. Preferred direct dyes includes anionic dyes such as Acid Red 33 and Acid Red 52 (page 18, last paragraph).

The selection of particular direct dyes in amounts within the ambit envisaged by the general teaching of document (1), i.e. as required in claim 1, is neither critical nor purposive for solving the objective problem underlying the patent in suit, but is an arbitrary choice of no technical significance. Thus, this choice can be seen as lying within the routine activity of the skilled person faced with the objective problem of providing an alternative process for colouring hair and thus is obvious in the light of document (1).

8. For these reasons, the subject-matter of claim 1 of the patent as granted does not involve an inventive step, and the patent must be revoked. The admittance of document (6) need not be decided.

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:

C. Rodríguez Rodríguez P. Gryczka

Decision electronically authenticated