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Datasheet for the decision
of 23 June 2016

Case Number: T 0876/13 - 3.3.07
Application Number: 03258020.1
Publication Number: 1543820
IPC: A61K8/898, A61Q5/00
Language of the proceedings: EN

Title of invention:
Enhancing the colour perception of artificially coloured hair

Patent Proprietor:
THE PROCTOR & GAMBLE COMPANY

Opponents:
Kao Germany GmbH
Henkel AG & Co. KGaA

Relevant legal provisions:
RPBA Art. 12(1)
EPC Art. 111(1), 100(c), 54, 56
**Keyword:**
Documents filed with the statement setting out the grounds of appeal - admitted (yes)
Remittal to the department of first instance (no)
Amendments - added subject-matter (no)
Novelty (yes)
Inventive step (yes)

**Decisions cited:**
G 0001/03, J 0006/98
Case Number: T 0876/13 - 3.3.07

DECISION
of Technical Board of Appeal 3.3.07
of 23 June 2016

Appellant: Kao Germany GmbH
(Opponent 1)
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Appellant: Henkel AG & Co. KGaA
(Opponent 2)
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Representative: Henkel AG & Co. KGaA
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Respondent: THE PROCTER & GAMBLE COMPANY
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 25 February 2013 rejecting the opposition filed against European patent No. 1543820 pursuant to Article 101(2) EPC.
Composition of the Board:

Chairman  D. Semino
Members:   A. Usuelli
          P. Schmitz
Summary of Facts and Submissions

I. European patent No. 1 543 820 was granted on the basis of 9 claims.

Independent claims 1, 3, 5 and 9 of the patent read as follows:

"1. The use of a solution of an aminosilicone on hair, after it has been artificially colored, for increasing the colour intensity of said artificially coloured hair."

"3. A method of increasing the colour intensity of artificially coloured hair, comprising the steps of applying onto said coloured hair a composition comprising an aminosilicone according to either of formulae (I) or (VI) as defined hereinabove, and which is a solution of aminosilicone comprising from 3% to 50% by weight of the total composition of said aminosilicone."

"5. A kit of parts comprising one or several first components for coloring hair and a second component for enhancing the color perception of the hair colored with said first component, where said second component comprises a composition comprising an aminosilicone according to either formulae (I) or (VI) as defined hereinbefore, and which is a solution of aminosilicone comprising from 3% to 50% by weight of the total composition of said aminosilicone."

"9. An article of manufacture comprising a wipe or a sponge comprising a composition comprising an aminosilicone according to either formulae (I) or (VI) as defined hereinabove and which is a solution of
aminosilicone comprising from 3% to 50% by weight of the total composition of said aminosilicone."

II. Two oppositions were filed against the patent. The following documents were among those cited during the opposition proceedings:

D1: Schwarzkopf Gliss Kur Hair Repair; Datamonitor 2003
D5: EP 1 312 346 A2
D14: Compilation document relating to hair-care products comprising amodimethicone
D15: Experimental report

III. By decision posted on 25 February 2013 the opposition division rejected the oppositions.

According to the decision under appeal:

(a) The features "after it has been artificially coloured" and "increasing the colour intensity" had a basis respectively on page 1 (lines 9 to 22) and page 2 (lines 31 to 33) of the original application. The fact that the aminosilicone was used in solution was highlighted in various passages of the description, e.g. page 2, lines 8 to 22. The requirements of Article 123(2) EPC were therefore met.

(b) Documents D1, D5 and D14 did not provide an unambiguous disclosure of solutions comprising an aminosilicone. Moreover, D1 and D5 did not disclose the use of the products disclosed therein for increasing colour intensity. The subject-matter of the patent was therefore novel over these documents.
(c) The closest prior art for the assessment of inventive step was the product "Color Fix Styling Mousse" described in D14. The subject-matter of claim 1 of the patent differed from this prior art in that the aminosilicone was in the form of a solution. The results disclosed in document D15 demonstrated that the distinguishing feature was associated with the effect of providing superior enhancement of the colour intensity of artificially coloured hair. The technical problem was therefore to be seen in the provision of improved procedures and products for colour-intensifying treatment of hair after it has been artificially coloured. The prior art documents did not suggest the effect resulting from the formulation of an aminosilicone in the form of a solution. The requirement of inventive step was therefore met.

IV. Opponents 1 and 2 (hereinafter appellant-opponent 1 and appellant-opponent 2) lodged an appeal against that decision.

With the statement setting out the grounds of appeal appellant-opponent 2 submitted the following pieces of evidence:

D5a: Rapport d'essai
D16: Wacker-Belsil® ADM 652, ADM 656, ADM 1100, ADM 1600, ADM 1650, January 2000
D17: Cosmetics & Toiletries magazine, 114, 11, p.55
Reprint from November 1999

V. By letter dated 16 January 2014 the patent proprietor (hereinafter respondent) requested that the appeals be dismissed and that the patent be maintained as granted, or alternatively that the patent be maintained on the
basis of three auxiliary requests submitted with the same letter.

VI. Oral proceedings were held on 23 June 2016.

VII. The appellants' arguments, as far as they are relevant for the present decision, can be summarised as follows:

(a) **Article 100(c) EPC**

In granted claim 1, the feature "solution of an aminosilicone" was based on the selection of an embodiment disclosed in paragraph [0007] of the original application. The feature "increasing the colour intensity" was selected among the several alternative uses disclosed in original paragraph [0011]. Thus, the subject-matter of claim 1 as granted was the result of a double selection within the disclosure of the original application. Furthermore, in order to reflect the disclosure of original paragraph [0011], claim 1 should have included the indication that no further dyes or chromophores or bleaches were used. Therefore the amendments resulting in claim 1 as granted extended beyond the application as filed.

(b) **Novelty**

The products disclosed in documents D1 and D14 and the compositions of examples D and E of D5 anticipated the claims of the patent. The components included in the products of the prior art were disclosed in the patent in suit as possible components of the aminosilicone solution. Therefore also the products disclosed in D1, D5 and D14 were to be regarded as solutions. As to the use referred to in claim 1 of the patent, namely increasing colour intensity, this was the same use as
in D14 and it was not distinguishable from the uses mentioned in documents D1 and D5 for the compositions disclosed therein.

(c) Inventive step

The product Color Fix Styling Mousse of D14 represented the closest prior art. The subject-matter of the patent differed from the disclosure of D14 in that the aminosilicone was used in the form of a solution. The experimental report D15 was no evidence of an improvement over the closest prior art. Indeed, this document provided few details about the composition of the products tested and about the conditions in which the experiments were carried out. Accordingly, it was impossible for the appellants to verify the correctness of the experimental results reported in D15. Furthermore, the comparative compositions used in the experiments of D15 were different from the composition of the closest prior art. On the other hand, the data submitted by appellant-opponent 1 during the first-instance proceedings showed that the colour-intensifying effect of the aminosilicone solution could be observed only for concentrations of aminosilicone above 3%. Additionally, the experiments of D5a showed that the aminosilicone compositions of D5 did not modify the colour intensity. These observations cast doubts as to whether an aminosilicone solution could be used for increasing the colour intensity. Thus, the claimed effect was absent, or at least had not been shown to be present over the whole scope of claim 1, which did not contain any limitation as to the concentration of aminosilicone. Document D5 disclosed compositions D and E which contained various surfactants in addition to an aminosilicone. These had the effect of solubilising the aminosilicone.
Accordingly, D5 disclosed compositions containing aminosilicone in the form of a solution. Hence, the subject-matter of the patent in suit was obvious in view of the combined teachings of D14 and D5.

According to an alternative approach followed by appellant-opponent 2, document D5 was the closest prior art. It was not specified in this document whether the aminosilicone present in the compositions of the examples was solubilised. However, the skilled person knew from D16 the solvents in which the aminosilicone was soluble. Furthermore, he knew from D17 that the aminosilicone had an effect on hair luster. The subject-matter of the patent was therefore obvious in view of the teaching of D5 in combination with D16 and D17.

VIII. The respondent's arguments, as far as they are relevant for the present decision, can be summarised as follows:

(a) Admittance of documents D5a, D16 and D17 and remittal to the department of first instance

If documents D5a, D16 and D17 were admitted into appeal proceedings the case should be remitted to the opposition division in order to give the respondent the opportunity to defend its position before two instances.

(b) Article 100(c) EPC

The introduction into claim 1 of the feature "increasing the colour intensity" had a basis in paragraph [0011] of the application as filed. The uses mentioned in this paragraph were clearly regarded as a single use in the context of the patent. The solution
form of the aminosilicone was highlighted in various passages of the original application, such as paragraphs [0007] and [0008]. Thus, the subject-matter of claim 1 of the patent did not extend beyond the content of the application as filed.

(c) Novelty

None of the prior-art documents D1, D5 and D14 provided an unambiguous disclosure of a composition containing an aminosilicone in the form of a solution. The compositions disclosed in these documents contained water as main component and mixtures of surfactants. Thus, the products disclosed in D1, D5 and D14 were clearly emulsions of aminosilicone. Hence, the patent met the requirement of novelty.

(d) Inventive step

The product representing the closest prior art, namely Color Fix Styling Mousse of D14, was an emulsion. The experimental report D15 showed that an aminosilicone solution provided a higher K/S value, i.e. a better enhancement of the perception of the colour, than an aminosilicone emulsion. The report clearly indicated which aminosilicone was used. Details for preparing the compositions tested in D15 could be derived from the example of the patent. Thus, document D15 clearly supported the presence of an improvement deriving from the use of an aminosilicone in the form of a solution. None of the prior-art documents suggested this effect. The requirement of Article 56 EPC was therefore met.

IX. The appellants requested that the decision under appeal be set aside and that the patent be revoked.
X. The respondent requested that the appeals be dismissed, or alternatively that the patent be maintained on the basis of one of the first to third auxiliary requests filed with letter of 16 January 2014. He furthermore requested that if documents D5a, D16 and D17 were admitted into the appeal proceedings the case be remitted to the department of first instance.

Reasons for the Decision

1. **Admittance of documents D5a, D16 and D17 - Request for remittal to the department of first instance**

1.1 The respondent did not maintain its initial request that documents D5a, D16 and D17 not be admitted into the appeal proceedings. The Board notes that these documents were submitted by appellant-opponent 2 with the statement setting out the grounds of appeal. Accordingly, they form part of the basis of the appeal proceedings pursuant to Article 12(1) RPBA and there is no apparent reason why they should not be admitted into the proceedings.

1.2 As to the respondent's request that the case be remitted to the opposition division to give it the opportunity to defend its position before two instances, it is established case law that there is no absolute "right to two instances" in the sense that a party is entitled in all circumstances to have every aspect of its case examined by two instances (see J 6/98, reasons 4).

The Board notes that the documents in question were submitted nearly three years before the date of the oral proceedings and that they do not appear to involve any particular technical difficulty. Furthermore, the
factual basis for the assessment of inventive step is not substantially changed by admitting these documents, in comparison with the situation in the first-instance proceedings. Thus, the Board in the exercise of its discretion under Article 111(1) EPC does not consider it appropriate to remit the case to the department of first instance.

Main request (patent as granted)

2. Article 100(c) EPC

2.1 Claim 1 of the application as originally filed relates to the use of an aminosilicone for providing enhanced colour perception of artificially coloured hair.

2.1.1 Claim 1 as granted specifies that the aminosilicone is in the form of a solution. A basis for this amendment can be found for instance on page 1, lines 29 to 31, and page 2, lines 8 to 13, of the original application. In the passage of page 1 is it explained that while silicones are generally formulated as emulsions, the invention underlying the patent in suit is based on the finding that the benefits of these substances are maximised when they are used in solution. Page 2, lines 8 to 13, refers to a composition which is a solution of an aminosilicone and to a method involving the use of such a composition. They do not mention any other type of aminosilicone composition. Thus, the indication that the aminosilicone is used in the form of a solution does not involve any selection among alternative compositions, as suggested by the appellants. On the contrary, throughout the original application the use of aminosilicone in the form of a solution is presented as a key aspect of the invention. Therefore, the skilled person is not presented with new technical
information by the specification in claim 1 that a solution of aminosilicone is used.

2.1.2 Instead of the use "for providing enhanced colour perception", granted claim 1 indicates that the solution of aminosilicone is used "for increasing the colour intensity". In this respect the Board notes that the paragraph bridging pages 2 and 3 of the original application unambiguously indicates that the effect mentioned in original claim 1, i.e. enhancement of colour perception, can be expressed also by other equivalent expressions such as "increased colour intensity". Hence, the uses recited in claim 1 as filed and in claim 1 as granted are presented as the same use in the description of the original application. Thus, the replacement of the wording used in original claim 1 by the wording of granted claim 1 does not mean that a different use of the aminosilicone solution has been selected, since only one use is taught in the original application, although different expressions have been used to describe it.

2.1.3 As to the appellants' argument that claim 1 should specify that no further dyes or chromophores or bleaches are used, the Board observes that also original claim 1 did not include a feature excluding these agents. Hence, the absence of this feature cannot be considered to result in added subject-matter.

2.2 It follows from the above that the subject-matter of claim 1 of the patent as granted does not extend beyond the content of the application as filed.

2.3 No objections under Article 100(c) EPC have been presented by the appellants against claims 2 to 9. Having considered this matter, the Board sees no reason
to disagree with the opposition division's conclusion that the patent does not comprise subject-matter extending beyond the content of the application as filed.

3. Novelty

3.1 The appellants have raised objections of lack of novelty in view of the products disclosed in documents D1 and D14 and in view of the compositions of examples D and E of D5.

3.1.1 D1 and D14 relate to commercial products containing *inter alia* amodimethicone, i.e. an aminosilicone. Neither D1 nor D14 specifies whether this compound is solubilised. It is nevertheless noted that both compositions contain water in which amodimethicone is not soluble, as reported in the table of page 3 of document D16. The presence in both products of various surfactants such as trideceth-12 and cetrimonium chloride renders plausible in the Board's view the respondent's hypothesis that the two compositions are water-based emulsions. On that basis it can be concluded that D1 and D14 do not provide an unambiguous disclosure of aminosilicone solutions.

This conclusion is not affected by the circumstance that some of the components included in the products of D1 and D14 are disclosed in the patent in suit as possible components of the aminosilicone solution. Indeed, the indication in the patent that certain substances may be present in the aminosilicone solution does not imply that any composition containing an aminosilicone and one or more of these substances is necessarily a solution. This will depend on various factors such as the amount of each component of the
composition and possibly the method of its preparation. However, neither D1 nor D14 provides detailed information about this.

3.1.2 The product disclosed in example E of D5 (page 6) contains Belsil ADM 652® as an aminosilicone and water as the main component of the composition. In D5 too, there is no explicit information as to whether the composition of example E is a solution or an emulsion. However, given that Belsil ADM 652® is not soluble in water (see page 3 of D16) and that water is present in an amount close to 85%, it appears unlikely that the aminosilicone is solubilised. The same holds for the composition of example D of D5 (page 6). In this respect it also observed that the aminosilicone compositions of D5 are preferably in the form of oil-in-water emulsions (see paragraph [0019]). Thus, also document D5 fails to provide an unambiguous disclosure of an aminosilicone solution.

3.2 Therefore, the Board concludes that the subject-matter of the main request fulfils the requirement of novelty.

4. Inventive step

The invention underlying the patent in suit relates to the problem of increasing the colour intensity of artificially coloured hair (see paragraph [0001] of the patent specification).

4.1 Closest prior art

4.1.1 Documents D14 and D5 have been considered in the context of selecting the closest prior art.
4.1.2 The product Color Fix Styling Mousse of D14 is described as a mousse for coloured or dyed hair and is reported to intensify the hair colour (see paragraph "Produktbeschreibung"). Hence, this product is intended to address the same problem as the patent in suit, namely to enhance the colour perception of artificially coloured hair. Document D5 relates to the problem of improving the resistance of the coloration (see paragraph [0004]). No reference is made in this document to the objective of increasing the colour intensity of artificially coloured hair.

Hence, document D14 represents the closest prior art since it relates to the same problem as the patent in suit, whereas D5 concerns a similar but different problem.

4.1.3 The subject-matter of the patent in suit differs from the disclosure of document D14 in that the aminosilicone is required to be used in the form of a solution.

4.2 Technical problem

4.2.1 During the first-instance proceedings, the respondent submitted document D15 which is a report of two experiments designed to assess the effectiveness of aminosilicone solutions in increasing the colour intensity of artificially coloured hair and to compare these compositions with aminosilicone emulsions.

4.2.2 The first experiment shows that the K/S value of artificially coloured hair treated with an aminosilicone solution is greater than the K/S value of artificially coloured hair which has not been treated with an aminosilicone solution. As explained in
paragraph [0013] of the patent, the K/S parameter is a measure of the colorimetric properties of a material. This experiment supports the effect of the aminosilicone solution in increasing the coloration of artificially colored hair. D15 also provides data relating to artificially coloured hair treated with an aminosilicone solution and then washed. These data indicate that the increase in colour intensity persists after four washes.

4.2.3 In the second experiment of D15 the K/S values of artificially coloured hair treated with a solution of aminosilicone are compared with those of artificially coloured hair treated with an emulsion in an aqueous system of the same aminosilicone. The aminosilicone used is the resin blend ADM1100/MQ. As explained in D15, this product is the same product as that described on page 9 of the patent application.

The results of the experiment indicate that hair treated in accordance with the method of the patent in suit, i.e. with a solution of aminosilicone, has a higher K/S value. Thus, the second experiment of D15 shows that a solution of aminosilicone provides a better enhancement of the colour intensity of artificially coloured hair than an emulsion of the same aminosilicone.

Although the comparative product used in the experiment is different from the product representing the closest prior art, the second experiment of D15 is in the Board's view a relevant piece of evidence in the context of defining the technical problem, in that it permits an assessment of the effects arising from the distinguishing feature, namely the use of an
aminosilicone solution instead of an aminosilicone emulsion.

4.2.4 The probative value of the experiments of D15 was contested by the appellants who argued that this document provided few details about the exact compositions of the products tested and about the procedures followed in the experiments. That made it impossible for them to verify the correctness of the results reported in D15.

However, as mentioned above, document D15 identifies the specific aminosilicone contained in the compositions tested. It furthermore provides a reference to page 9 of the application, where information about the supplier of the product is given. In relation to the second experiment, D15 indicates that the solutions contain hexane as the solvent and that the aminosilicone resin blend has been used in concentrations of 0.1 g/g or 0.2g/g. Concerning the comparative compositions, it is explained that these are formulated as emulsions in an aqueous system and contain the same aminosilicone resin blend used for the solutions, in the same concentrations. As to the method for measuring the colour intensity, D15 indicates that the K/S measurements were made at 500nm. As discussed above, further details about the K/S parameter are disclosed in paragraph [0013] of the patent.

The Board cannot detect any flaw of a technical nature in the experiments disclosed in this document, and therefore has no reason to doubt the correctness of the results disclosed in it. It furthermore considers that, based on the information disclosed in D15 and in the patent, any skilled person would be able to prepare aminosilicone solutions and aminosilicone aqueous
emulsions. He would also be able to make measurements of colour intensity based on the K/S parameter, since these are part of his general knowledge. Thus, there was nothing to prevent the appellants from carrying out their own experiments in order to challenge the results obtained by the respondent.

4.2.5 The appellants also argued that the alleged effect of increasing the colour intensity of artificially coloured hair was not credibly demonstrated over the whole scope of claim 1, which did not contain any limitation on the concentration of the aminosilicone. In this context they referred to the data submitted by appellant-opponent 1 during the first-instance proceedings and to the results disclosed in D5a.

On this issue the Board notes that the technical effect of increasing the colour intensity is expressed in claim 1 of the patent. Thus, whether this effect is achieved is an issue of sufficiency of disclosure rather than inventive step (see G1/03, OJ EPO 2004, 413, in particular point 2.5.2 of the reasons). Although not relevant in the context of the present decision, the Board notes, as an aside, that D15 shows that the solutions of aminosilicone can be used in such a way as to produce the effect recited in claim 1.

The issue raised by the appellants may have relevance in relation to the assessment of inventive step of product claims 5 and 9. These claims relate respectively to a kit comprising an aminosilicone solution and an article of manufacture comprising a wipe or a sponge containing an aminosilicone solution (see point 1 above). Both claims define the concentration of aminosilicone in the solution as being between 3% and 50% by weight. The experiments carried
out by appellant-opponent 1 concern tests carried out using isopropanol solutions of an aminosilicone. The data indicate that the colour-intensifying effect is observed only when the aminosilicone is around 3% or above. Thus, the experiments of appellant-opponent 1 suggest that the effect of increasing colour intensity is achieved across the scope of claims 5 and 9.

The effectiveness of the aminosilicone solutions in increasing colour intensity has been questioned also by arguing that the experiments of D5a show that the aminosilicone compositions of D5 do not modify the colour intensity. The Board sees no merit in this argument, since there is no indication in D5 that the compositions disclosed therein are solutions. Thus, the properties of the solutions of the patent in suit cannot be inferred from the results of experiments relating to the compositions of D5.

4.2.6 In view of the considerations set out above, the technical problem can be defined as the provision of improved methods and products for increasing the colour intensity of artificially coloured hair.

4.3 Obviousness

4.3.1 Document D14 does not contain any information that could guide the skilled person trying to improve the effectiveness of the product "Color Fix Styling Mousse" in further increasing the colour intensity of artificially coloured hair.

As discussed in point 4.1.2 above, document D5, referred to by the appellants, does not address the problem of increasing the colour intensity of artificially coloured hair. The compositions disclosed
in this document are used to preserve the colour of artificially coloured hair (see paragraph [0004]) and there is no indication that they provide also colour enhancement. Indeed, document D5a, which is an experimental report submitted by the applicant of D5 during the examination proceedings on this case, shows that the colour of artificially coloured hair treated with the compositions of D5 has a good resistance to shampooing. There is however no evidence of an increase in colour intensity.

Besides this, the Board observes that there is no indication in D5 that compositions D and E, extensively discussed by appellant-opponent 1 during the oral proceedings, are solutions of an aminosilicone. The circumstance that these compositions contain water as the main component and various surfactants makes it more credible that compositions D and E are aminosilicone-containing emulsions.

4.3.2 None of the other documents cited by the parties teaches the use of aminosilicone solutions for increasing the colour intensity of artificially coloured hair.

It follows from the above considerations that the subject-matter of the patent meets the requirements of Article 56 EPC.

4.4 For the sake of completeness, the Board observes that the same conclusion would be reached starting from document D5 as the closest prior art.

As discussed above, this document does not address the problem of increasing the colour intensity of artificially coloured hair. The same observation
applies to documents D16 and D17, considered by appellant-opponent 2 in combination with D5.

D16 is a technical brochure concerning the aminosilicone amodimethicone. It states *inter alia* that the product is used in shampoos and conditioners because of its ability to coat the hair (see last paragraph of first page). Document D17 discusses the use of emulsions containing silicone derivatives to improve hair luster (see first page, left column, last complete paragraph and the title). None of these documents envisages the possibility of using the products disclosed therein for improving the colour intensity of artificially coloured hair.

Thus, combining the teaching of D5 with D16 and/or D17 would not render obvious the subject-matter of the patent.
Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar:          The Chairman:  

S. Fabiani              D. Semino

Decision electronically authenticated