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D E C I S I O N
of 28 June 2004

Case Number: T 0086/03 - 3.3.6

Application Number: 95944437.3

Publication Number: 0876458

IPC: C11D 3/37

Language of the proceedings: EN

Title of invention:
Hard-surface cleaning compositions

Patentee:
THE PROCTER & GAMBLE COMPANY

Opponent:
Unilever N.V.

Headword:
Hard-surface cleaning/PROCTER & GAMBLE

Relevant legal provisions:
EPC Art. 114(2), 56

Keyword:
"Late filed document (not admissible):not relevant at first sight"
"Inventive step (yes): "streak-free" cleaning and restoring of gloss are different technical problems - no incentive for replacing a metal complex with a metal salt for improving the restoration of gloss"

Decisions cited:
T 0541/98, T 0536/88, T 1002/92

Catchword:
-



Case Number: T 0086/03 - 3.3.6

D E C I S I O N
of the Technical Board of Appeal 3.3.6
of 28 June 2004

Appellant:
(Opponent)

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Respondent:
(Proprietor of the patent)

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Representative:

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Decision under appeal:

Interlocutory decision of the Opposition
Division of the European Patent Office posted
21 November 2002 concerning maintenance of
European patent No. 0876458 in amended form.

Composition of the Board:

Chairman: G. N. C. Raths
Members: L. Li Voti
U. J. Tronser

Summary of Facts and Submissions

I. The present appeal is from the decision of the Opposition Division to maintain the European patent No. 0 876 458, concerning a hard surface cleaning composition and a process of cleaning a hard surface, in amended form.

II. In its notice of opposition the Opponent sought revocation of the patent on the grounds of Article 100(a) EPC, in particular for lack of novelty and inventive step of the claimed subject-matter.

Inter alia the following documents were cited by the Opponent during the opposition proceedings:

(5): EP-A-0125711

(6): NL-A-7505881

(7): NL-A-7404969

(8): WO-A-94/26858.

Document (8) was filed two days before the oral proceedings at first instance.

III. In regard to the set of amended claims according to the main request, filed by the Patent Proprietor under cover of the letter dated 20 December 2001, the Opposition Division found in its decision *inter alia* that

- document (8), filed by the Opponent only two days before the oral proceedings, had to be considered as late filed;
- this document was at first sight not relevant for the proceedings and had thus not to be admitted;
- as agreed upon by the Opponent, the claimed subject-matter was novel over the other cited documents;
- the comparative examples filed by the Patent Proprietor under cover of the letter dated 8 October 2002 showed the superiority of the compositions of the patent in suit over those used in documents (6) or (7);
- the benefits of the compositions disclosed in documents (6) and (7) were achieved by means of a combination of a polycarboxylate polymer with a complex of a divalent ion and a volatile ligand which was not comprised in the compositions of document (5);
- therefore, the skilled person would not have combined the teaching of documents (6) or (7) with that of document (5) and thus replaced the polymer used in document (5) with one of the polymers suggested in documents (6) or (7) in order to solve the technical problem underlying the patent in suit;

- the claimed subject-matter thus involved an inventive step.

IV. The independent claims 1 and 4 according to the main request read as follows:

"1. A process of cleaning a hard-surface wherein a liquid composition having a pH of from 6 to 13 and comprising a carboxylate-containing polymer and a divalent counterion, added in the form of a non-complex salt or as one ingredient with said carboxylate-containing polymer, in a molar ratio of said polymer to said divalent counterion of from 12:1 to 1:32 and from 0.1% to 50% by weight of the total composition of a surfactant, is applied onto said surface, wherein said carboxylate-containing polymer is a cellulose derivative, a polyacrylate, an acrylic/maleic based copolymer, or a mixture thereof."

"4. A liquid hard-surface cleaning composition having a pH of from 6 to 13 and comprising a carboxylate-containing polymer and a divalent counterion, added in the form of a non-complex salt or as one ingredient with said carboxylate-containing polymer, in a molar ratio of said polymer to said divalent counterion of from 12:1 to 1:32, and from 0.1% to 50% by weight of the total composition of a surfactant, wherein said carboxylate-containing polymer is a cellulose derivative, a polyacrylate, an acrylic/maleic based copolymer, or a mixture thereof, said composition being free of a proteolytic or amylolytic enzyme and of polyhydroxy fatty acid amide."

Dependent claims 2 to 3 and 5 to 11 relate to particular embodiments of the claimed process and product, respectively.

V. An appeal was filed against this decision by the Opponent (Appellant).

Oral proceedings were held before the Board on 28 June 2004.

VI. The Appellant submitted in writing and orally that:

- document (8) had not to be regarded as being late filed since it had been cited and discussed in the patent in suit;
- even though none of the examples of document (8) disclosed a composition or a process having all the features of those according to the claims of the patent in suit, this document disclosed liquid cleaning compositions which could be diluted before use, comprised a surfactant and a polymer as required in the patent in suit and had a pH of 2 to 8 (page 5, lines 20 to 28; page 9, lines 15 to 17 and example 2h-1);
- the dilution of the compositions according to document (8) with tap water at a rate normally used in the art belonged to the common general knowledge of the notional skilled practitioner in this technical field; such a dilution would give a molar ratio of polymer to divalent ions, a concentration of surfactant and a pH as required in the claims of the patent in suit;

- therefore, this document anticipated the claimed subject-matter and was at first sight highly relevant for the proceedings.

As regards inventive step, the Appellant submitted that

- the technical problem dealt with in the patent in suit encompassed the partial restoring of the gloss of a surface to be cleaned as shown in the comparative tests submitted by the Respondent (Patent Proprietor) under cover of the letter dated 8 October 2002;
- a cleaning method like that of document (5), leading to a streak-free cleaning of the treated substrate and thus necessarily to the partial restoring of the gloss of an originally glossy surface, could thus be considered as the most promising starting point for the evaluation of inventive step;
- the subject-matter disclosed in document (5) differed from that of the patent in suit only insofar as this document required the use of a different polymer;
- however, it was obvious for the skilled person to replace the polymer of document (5) with one of those used in the cleaning method of documents (6) or (7) for imparting gloss to the treated surface;

- the claimed subject-matter thus lacked an inventive step in the light of the combination of document (5) with documents (6) or (7).

Moreover, the Appellant submitted during oral proceedings before the Board that the use of, for example, the ammonium salt of anionic surfactants in the compositions of the patent in suit (page 4, line 16) would result in the formation *in situ* of divalent metal complexes of the type used in documents (6) or (7), according to which such complexes can also be prepared *in situ*. Therefore, no difference existed between the teaching of the patent in suit and that of these documents.

VII. As regards document (8) the Respondent submitted in writing and orally that:

- document (8), though acknowledged as prior art in the patent in suit, could not be considered as being part of the opposition proceedings because it did not represent the closest prior art;
- document (8) had been introduced very late in the proceedings of first instance and did not disclose at first sight all the features in combination of the claimed subject-matter;
- since it was not at first sight relevant for the evaluation of the claimed invention, it had not to be admitted into the proceedings.

As regards inventive step the Respondent submitted *inter alia* that

- the technical problem dealt with in the patent in suit did not relate simply to the streak-free cleaning of a surface but also to the at least partial restoring of its original gloss and thus to a different technical problem; therefore, document (5) could not be considered to be a suitable starting point for the evaluation of inventive step;
- documents (6) and (7) had a similar content and related to the use of compositions for cleaning and imparting gloss to the treated hard surfaces;
- however, document (7) explicitly taught that the compositions disclosed in this document were unable to impart gloss when used in diluted form; document (6), on the contrary, did not make any distinction between the improvement of gloss achieved by means of a diluted or a concentrated composition; document (6) could thus be considered to represent the most promising starting point for the evaluation of inventive step;
- the process or the composition disclosed in document (6) differed from the claimed subject-matter insofar as the divalent ion had been added as a complex with a volatile ligand;
- the technical data submitted at first instance under cover of the letter dated 8 October 2002 showed that the product and process of the patent in suit provided a superior gloss in comparison to

the use of the complexed divalent ion preferred in document (6);

- moreover, the skilled person would not have combined the teaching of document (6) with that of document (5) since the benefits of the compositions disclosed in document (6) necessitated the presence of a combination of a polycarboxylate polymer with a complexed divalent ion which was absent in the compositions of document (5);

- the claimed subject-matter thus involved an inventive step.

VIII. The Appellant requests that the decision of first instance be set aside and that the patent be revoked.

The Respondent requests that the appeal be dismissed.

Reasons for the Decision

1. *Main Request*

1.1 Late filed document

1.1.1 The Appellant filed document (8) only two days before the oral proceedings at first instance and argued that this document had not to be considered as late filed since it had already been cited and discussed in the description of the patent in suit (page 2, lines 36 to 40).

It is established case law of the Boards of Appeal of the EPO that a document which is cited in the description of the patent in suit but has neither been cited by the Opponents within the time limit for filing an opposition in accordance with Article 99(1) EPC nor by the Patent Proprietor or by the Opposition Division cannot be considered automatically to be part of the opposition proceedings; such a document has thus to be considered as part of the opposition proceedings only if it represents the closest prior art for the evaluation of the inventive step of the claimed subject-matter (see T 541/98, unpublished in OJ EPO, point 2.1 of the reasons for the decision and T 536/88, OJ EPO 1992, 638, points 2.1 and 2.2 of the reasons for the decision).

In the present case the Appellant did not take document (8) as the starting point for evaluating inventive step. The Board notes also that the description of the patent in suit does not identify this document as the closest prior art or as being of any importance for the claimed invention. Furthermore, neither the Respondent nor the Opposition Division cited this document during the opposition proceedings when discussing the patentability of the claimed subject-matter.

The Board concludes, therefore, that document (8) cannot be considered to be part of the opposition proceedings only because it is cited in the description of the patent in suit.

- 1.1.2 The Appellant did not bring any excuse for the late filing of document (8).

It remains thus to be decided if the Opposition Division was right in not admitting this document by making use of the provisions of Article 114(2) EPC.

It is established case law of the Boards of Appeal of the EPO that late filed evidence should only be admitted at the opposition or at the appeal stage if it can be considered at first sight to be more relevant than the evidence previously relied upon and to be prejudicial to the maintenance of the patent (see, e.g. T 1002/92, OJ EPO 1995, 605, points 3.3, 3.4 and 3.5 of the reasons).

The Appellant agreed that none of the examples of document (8) describes a product or a process as claimed in the patent in suit but put forward that the whole teaching of this document, combined with the common general knowledge about the use of diluted compositions in this technical field, would at first sight anticipate the claimed subject-matter (see e.g. page 5, lines 20 to 28; page 14, lines 9 to 25; page 9, lines 15 to 17; example 2h-1, in particular page 21, lines 26 to 29).

The Board finds, however, that even the particularly preferred concentrated compositions of document (8), i.e. those disclosed on page 14, lines 9 to 25, can comprise polymers which do not fall under the wording of the claims of the patent in suit, e.g. all copolymers based on combinations with ethylene, styrene, methyl vinyl ether and methacrylic monomers. Moreover, these compositions can have a pH in the range of 3 to 6, wherein a pH of e.g. 3 would appear not to give a pH

within the range of the claims of the patent in suit even after dilution at the rate suggested in the examples 2h-1 (page 21, lines 26 to 29). The Appellant has also not produced any evidence to the contrary. Furthermore, document (8) suggests as a general teaching that the disclosed compositions can be used in concentrated or diluted form (page 9, lines 11 to 17).

Therefore, the Board finds that, in order to arrive at the subject-matter of claim 1, the skilled person would have to perform various selections, i.e. he would have to select from the broader teaching of document (8) at least a polymer of the type used in the patent in suit, a pH near the upper limit of the suggested range in order to guarantee a pH of at least 6 after dilution and would have to decide to use such a composition in diluted form.

Document (8) thus does not disclose all the features of claims 1 or 4 of the patent in suit in combination.

The Board concludes that document (8) cannot be considered to be at first sight an anticipation of the claimed subject-matter.

- 1.1.3 Since the Appellant did not argue that this document would be more relevant than the other cited documents in regard to inventive step, the Board concludes that document (8) cannot be considered to be at first sight more relevant than the other documents cited by the Appellant or prejudicial to the maintenance of the patent in suit.

Therefore the Opposition Division was correct in not admitting this document under Article 114(2) EPC and, for the same reasons, it has not to be admitted into the appeal proceedings.

1.2 Novelty

Novelty of the claimed subject-matter was not disputed by the Appellant on the basis of the other cited documents (see point II above).

The Board has thus no reason to depart in this respect from the decision of the first instance that the claimed subject-matter is novel.

1.3 Inventive step

- 1.3.1 The patent in suit and, in particular, the subject-matters of claims 4 and 1 relate, respectively, to a hard surface liquid cleaning composition having a pH of from 6 to 13, comprising a specific carboxylate-containing polymer, a divalent counterion, added in the form of a non-complex salt or as one ingredient with said carboxylate-containing polymer at a specific molar ratio to said polymer and from 0.1% to 50% by weight of the total composition of a surfactant, and to a process of cleaning a hard surface by means of such a composition or of a dilution thereof (see page 2, line 5 and page 3, lines 20 to 46).

As explained in the patent in suit, there existed in the prior art hard surface cleaning compositions able to clean a hard surface without leaving a visible residue after use on the treated surface (so-called

"streak-free" compositions) and products able to deliver gloss to a surface, e.g. by means of the use of silicones, but not providing efficient cleaning (see page 2, lines 9 to 20).

The technical problem underlying the patent in suit is therefore defined in the description of the patent in suit as the formulation of a hard surface liquid composition having excellent cleaning performance and providing a better gloss and less surface streaking when used in concentrated and diluted form (see page 2, lines 21 to 31).

The Appellant argued that by using "streak-free" compositions, which leave by definition no visible residues on the treated surface, the original gloss of the treated surface would be necessarily at least partially restored. Therefore, the technical problem of providing a composition able to restore the gloss of a treated surface would not be different from that of providing a "streak-free" cleaning composition.

The Board agrees that a "streak-free" cleaning composition could at least partially restore under certain circumstances the original gloss of a treated surface; however, the patent in suit pointed explicitly to the difference between the provision of gloss to a cleaned surface and a "streak-free" cleaning method (page 2, lines 13 to 15).

Since the gloss depends, as explained in the patent in suit, on the reflectance of light from the cleaned surface (page 2, lines 14 to 15), a "streak-free" cleaning composition, though not providing visible

residues, could still provide not visible residues negatively affecting the gloss of the treated surface.

Therefore, the Board finds that the technical problem addressed in the patent in suit differs from the simple provision of a "streak-free" cleaning composition insofar as it strives at the purposive delivering of an improved gloss to the treated surface.

The Board concludes thus that the technical problem identified in the patent in suit is different from that of providing only a "streak-free" composition.

- 1.3.2 As agreed upon by all the parties, document (5) deals only with the provision of a "streak-free" hard surface cleaning composition and does not mention the improvement or even the restoring of the gloss of the treated surface (see page 1, lines 1 to 6).

Therefore, the Board finds that this document cannot be considered to represent the most suitable starting point for the assessment of inventive step.

Documents (6) and (7), which are similar in content, deal both with the cleaning of a hard surface and with the provision of improved gloss to the treated surfaces (see document (6), page 1, lines 1 to 10 and page 2, lines 27 to 32 and document (7) page 1, line 1 to page 2, line 5). Even though these documents suggest that the gloss is imparted rather by a layer deposited onto the surface than by restoring the original gloss of the treated surface (see previously cited passages), the Board finds that the patent in suit does not explain how the gloss is delivered to the treated

surface and thus does not exclude that a layer providing gloss be formed on the treated surface. Therefore, these documents deal in the Board's finding with the same technical problem addressed to in the patent in suit.

As suggested by the Respondent, document (7) teaches that the gloss of the treated surface is improved only by using concentrated compositions and not by using diluted ones (page 2, lines 26 to 30) whilst this does not appear to be the case with the compositions of document (6) (page 3, lines 34 to page 4, line 6).

Therefore, the Board takes document (6) as the most suitable starting point for the evaluation of inventive step of the claimed subject-matter.

- 1.3.3 All the parties agreed that document (6) discloses a composition having a pH and a surfactant as required by the patent in suit, comprising a similar carboxylate-containing polymer and a divalent metal ion which is, however, added as a complex with volatile ligands, which complex can also be formed *in situ*. The molar ratio of polymer to divalent ion is also in accordance with the patent in suit (page 3, lines 11 to 28; table on pages 6 and 7; page 8, lines 1 to 13; page 9, lines 5 to 14).

The subject-matter of document (6) differs thus from that of the patent in suit only insofar as it involves the use of a complex of the divalent ions.

The Appellant argued during oral proceedings that the patent in suit could also involve the use of complexes

of divalent ions similar to those used in document (6) since it involves e.g. the use of ammonium salts of surfactants (page 6, line 16) which could react *in situ* with divalent ions to form such a complex.

The Board finds that the Appellant did not bring any evidence that a metal complex could be formed during the preparation of a composition according to the patent in suit and that such compositions would be anyway not encompassed by the wording of the claims of the patent in suit requiring the presence of a divalent counter-ion in the form of a non-complex salt or as one ingredient with the polymer.

On the contrary, document (6) requires that the divalent ion is present in the cleaning composition as **a complex**, i.e. coordinated to ligands and, in regard to the formation of the metal complex *in situ*, is added as a compound which would react with the ligands to form **the complex** (see page 8, line 23 to page 9, line 14).

- 1.3.4 The technical problem underlying the claimed invention in the light of the teaching of document (6), can thus be formulated as identified in the description of the patent in suit (see point 1.3.1 above) as the formulation of a hard surface liquid composition having excellent cleaning performance and providing an improved gloss and less surface streaking when used both in concentrated or in diluted form.

The Respondent provided at first instance under cover of the letter dated 8 October 2002 comparative data showing that a composition in accordance with the

patent in suit provides both in concentrated and in diluted form a better gloss to the treated surface than a similar composition comprising the preferred type of metal complex used in document (6) (page 9, line 7).

The Appellant argued that these tests were not relevant since the gloss of the treated surface was not completely restored and that therefore the cleaning operation amounted just to a "streak-free" cleaning.

The Board agrees that the original gloss of the treated surface is not completely restored in such experiments. However, this is not a requirement of the technical problem underlying the claimed invention and a conventional "streak-free" cleaning does not necessarily imply any restoring of the gloss as explained in point 1.3.1 above.

Since the contested experimental data show that the compositions of the patent in suit provide an improved gloss than prior art compositions comprising a metal complex of the type preferred in document (6), the Board concludes that the technical problem underlying the patent in suit has been convincingly solved by means of the claimed invention.

- 1.3.5 In the Board's judgement the skilled person would not have combined, in the absence of any explicit suggestion to do so, the teaching of document (6), relating to the delivery of gloss to a treated surface by means of a composition comprising a complex of a divalent metal as an ingredient responsible for the effect, with that of document (5) which referred to the more simple technical problem, i.e. that of providing

"streak-free" cleaning compositions which did not comprise metal complexes.

The skilled person would thus not have found any incentive in the prior art for replacing the complex of divalent ions used in document (6) with a divalent ion salt, as used e.g. in document (5), with the expectation of providing improved gloss to the treated surface.

The Board concludes, therefore, that the claimed subject-matter involves an inventive step and thus meets the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

G. Rauh

G. Raths