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**Datasheet for the decision
of 28 January 2010**

Case Number: T 0107/06 - 3.3.10

Application Number: 99928964.8

Publication Number: 1096959

IPC: A61L 9/01

Language of the proceedings: EN

Title of invention:

Bacteria as odour control agent for carpets

Patentee:

Life Science TGO, S.R.L.

Opponent:

Novozymes Biologicals Inc.

Headword:

Bacteria as odour control agent for carpets/LIFE SCIENCE TGO

Relevant legal provisions:

EPC Art. 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Inventive step: all requests (no) - alleged improvement not shown - reformulation of problem - obvious alternative"

Decisions cited:

T 0020/81, T 0197/86, T 0270/90, T 0355/97, T 0836/02,
T 0176/04

Catchword:

-



Case Number: T 0107/06 - 3.3.10

D E C I S I O N
of the Technical Board of Appeal 3.3.10
of 28 January 2010

Appellant II: Novozymes Biologicals Inc.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
17 November 2005 concerning maintenance of
European patent No. 1096959 in amended form.

Composition of the Board:

Chairman: R. Freimuth
Members: C. Komenda
J.-P. Seitz

Summary of Facts and Submissions

I. The Appellant I (Patentee) lodged an appeal on 27 January 2006 and Appellant II (Opponent) lodged an appeal on 25 January 2006 against the interlocutory decision of the Opposition Division of 17 November 2005 which found that European patent No. 1 096 959 could be maintained in amended form.

The European patent was granted on the basis of 21 claims, independent claim 13 of which read as follows:

"13. An aqueous odour controlling composition for treating carpet or other fibrous material to impart odour control to the carpet or other fibrous material, the composition comprising one or more stain-blocker chemicals and an effective amount of dormant odour controlling bacteria."

II. Notice of Opposition had been filed by Appellant II requesting the revocation of the patent as granted in its entirety on the grounds of insufficient disclosure (Article 100(b) EPC), lack of novelty and lack of inventive step (Article 100(a) EPC). In support for his argumentation he filed *inter alia* documents

- (1) Exhibit C, product summary and technical data sheet of BI-CHEM BIOCLEAN, 6/97, Declaration of Louis Davis dated 26 May 2004, and
- (7) US-A-4 925 707.

III. The decision under appeal held that the invention was disclosed in a manner sufficiently clear for a skilled person to carry out the invention. Further, the

decision found that the subject-matter of the claims according to the then pending first auxiliary request was novel and involved an inventive step.

- IV. The Appellant I submitted during the oral proceedings held on 28 January 2010 before the Board a new auxiliary request. Independent claim 1 of this auxiliary request and independent claim 13 of the granted patent were identical.
- V. With his statement of the grounds for appeal the Appellant I stated that the subject-matter claimed was novel, since none of the cited documents disclosed a composition comprising a preparation of dormant bacteria together with a stain-blocker chemical. With regard to inventive step he argued that a skilled person wanting to enhance the association of the bacteria on the fibres would not have had any incentive to use stain-blockers, since they adversely affected the adherence of the bacteria on the carpet fibres. Further, the skilled person would not have considered the teaching of document (7), since this document was silent on the problem of controlling odour. The auxiliary requests I to IV submitted with letters dated 27 March 2006 and 29 August 2006, respectively, were withdrawn during the oral proceedings before the Board.
- VI. Appellant II reiterated his objection under Article 100 (b) EPC in combination with Article 83 EPC relating to insufficiency of disclosure of the invention. Further, he submitted that starting from Document (1) as closest prior art the subject-matter of claim 13 did not involve an inventive step. The problem to be solved consisted merely in providing alternative

compositions suitable for controlling odour on carpets or other fibrous material. Since the addition of stain-blocker chemicals did not result in any improvement over the prior art it would have been a routine variation of a skilled person to add a further known additive useful in the field of carpet cleaning, such as stain-blocker chemicals known from document (7). Thus, the skilled person would have arrived at the subject-matter claimed without having to exercise any inventive skill.

VII. The Appellant I requested that the decision under appeal be set aside and that the patent be maintained as granted, or auxiliarily that it be maintained on the basis of the auxiliary request filed during the oral proceedings held before the Board.

The Appellant II requested that the decision under appeal be set aside and that the patent be revoked.

VIII. At the end of the oral proceedings before the Board the decision was announced.

Reasons for the Decision

1. The appeals are admissible.

Main and auxiliary request

2. *Inventive step (Article 56 EPC)*

2.1 Claim 13 of the main request is identical to claim 1 of the auxiliary request. Thus, the following

argumentation on inventive step of the subject-matter of claim 13 according to the main request necessarily applies likewise to the subject-matter of claim 1 of the auxiliary request.

- 2.2 According to the established jurisprudence of the Boards of Appeal it is necessary, in order to assess inventive step, to establish the closest state of the art, to determine the technical results of or effects successfully achieved by the claimed invention vis-à-vis the closest state of the art, to define the technical problem to be solved as the object of the invention to achieve these results or effects, and to examine the obviousness of the claimed solution to this problem in view of the state of the art. This "problem-solution approach" ensures assessing inventive step on an objective basis.
- 2.3 In the present case the subject-matter claimed is directed to an aqueous composition for treating carpet or other fibrous material to impart odour control, which composition comprises a stain-blocker chemical and dormant odour controlling bacteria.
- 2.4 A similar composition belongs to the state of the art as disclosed in Exhibit C, which was regarded as representing the closest state of the art according to the decision under appeal. Both parties considered Exhibit C as closest state of the art and concurred also on the finding that this document constituted a piece of prior art according to Article 54(2) EPC.
- 2.5 Exhibit C, which consists of the product sheet and the technical data sheet of the commercial product BI-CHEM

BIOCLEAN, discloses that this product is to be used on carpets to degrade organic spill and to impart odour control thereto (page 1, right column, lines 3 to 5). The composition comprises a blend of bacillus spores (page 2, left column, "Product Characteristics"), which, according to page 5, line 23 of the specification of the patent in suit, represent one type of dormant bacteria. This disclosure of Exhibit C was not disputed among the parties.

- 2.6 Starting from this prior art the problem to be solved was to provide compositions showing an enhanced association of the bacteria on the fibres.
- 2.7 As the solution to the technical problem defined above the patent in suit proposes the compositions according to claims 13, characterized in that a stain-blocker chemical has been added to the composition.
- 2.8 Appellant I and Appellant II were divided as to whether or not the evidence presented convincingly showed a successful solution of the technical problem as defined by the Appellant I (see paragraph 2.6 *supra*) *vis-à-vis* the closest prior art. To demonstrate that the presence of a stain-blocker chemical in the composition comprising dormant odour controlling bacteria achieved the alleged effect of the enhanced association of dormant bacteria on the fibres, Appellant I relied on Fig. 1a and Fig. 1b of Example 1 comprised in the specification of the patent in suit.
- 2.8.1 According to the established case law of the Boards of Appeal, for a comparative test to demonstrate an inventive step based on an improved effect over a

claimed area, the nature of the comparison with the closest state of the art must be such that the effect is convincingly shown to have its origin in the distinguishing feature of the invention (see T 197/86, OJ EPO, 1989, 371, point 6.1.3).

However, the comparative Fig. 1a of Example 1 shows untreated carpet fibres, which contained naturally occurring bacteria only, but which have not been treated with a preparation of bacteria spores as disclosed in Exhibit C. Thus, Fig. 1a of Example 1 does not reflect the closest prior art. Consequently, a comparison between Fig. 1a and Fig. 1b according to the invention cannot show that the alleged enhanced association of the bacteria on the fibres has its origin in the distinguishing feature of the invention, namely the presence of a stain-blocker chemical in the composition, with the consequence that this comparison cannot support the alleged effect.

2.8.2 Further, the Appellant I referred to the passage on page 5, lines 8 to 12 of the patent specification, which stated that the use of the stain-blocker chemical or the fluorochemical improved the ability of the spores to become associated with the fibres, since these additives provided a protective encapsulation of the bacteria on the fibres.

According to the established jurisprudence of the Boards of Appeal, each of the parties to the proceedings carries the burden of proof for the facts it alleges. If a party, whose arguments rest on these alleged facts, does not discharge its burden of proof, this goes to the detriment of that party (see decisions

T 270/90, OJ EPO 1993, 725, point 2.1 of the reasons; T 355/97, point 2.5.1 of the reasons; T 836/02, point 4.5 of the reasons; T 176/04, point 5.6.3 of the reasons; all but T 270/90 not published in OJ EPO).

On the one hand the allegation brought forward by the Appellant I is mere speculation as long as it is not supported by corroborating evidence. However, since Fig. 1a and Fig. 1b of Example 1 referred to represented an inadequate comparison for the reasons of not reflecting the closest state of the art (see paragraph 2.8.1 *supra*), this evidence cannot support any purported improvement *vis-à-vis* the closest prior art. In referring to those figures the Appellant I implied that experimental evidence was a necessary prerequisite for his allegation to be supported by the facts. Thus, in the absence of any corroborating evidence the mere speculation brought forward by the Appellant I may not convince the Board.

On the other hand the passage cited by the Appellant I relates to a particular embodiment, namely the addition of stain-blockers during the manufacture of the carpet and revealing that only due to the elevated temperatures arising during the manufacture of the carpet the stain-blockers bind to the carpet fibres and serve to attach the bacteria to the fibre (page 5, lines 5 to 8). Therefore, the cited passage of the patent specification makes plain that any alleged effect would not have its origin in the presence of stain-blockers, but is due to a particular process step during the manufacture of the carpet, which, however, is not reflected in the product claim. Therefore, the

Appellant I's argumentation is simply not supported by the facts.

In realizing that its line of argumentation addressed above was not convincing, the Appellant I argued that the very same passage on page 5, lines 8 to 12 of the patent specification that stain-blockers improved the association of the bacteria spores, represented a general teaching valid for all claimed embodiments, irrespective of whether the composition was applied to the installed carpet or whether it was applied during the manufacture of the carpet.

However, the sentence referred to by the Appellant I is taken from paragraph [0018] of the patent specification, which describes two separate embodiments; a first embodiment relating to compositions containing stain-blockers for use on installed carpets and a second embodiment starting on page 5, line 5, relating to compositions containing stain-blockers applied during the manufacture of the carpet. Thus, the second part from line 5 onwards, which includes the sentence referred to by Appellant I, is directed exclusively to a very particular embodiment and contrary to the Appellant I's allegation, does not reveal any general teaching. Therefore, the facts do not bear it out.

- 2.8.3 According to the jurisprudence of the Boards of Appeal, alleged but unsupported advantages cannot be taken into consideration for the determination of the problem underlying the claimed invention (see e.g. decision T 20/81, OJ EPO 1982, 217, point 3 of the reasons, last sentence).

As the purported enhanced association of the dormant bacteria spores with the fibres has not been shown, the solution proposed by the patent in suit does not successfully solve the alleged technical problem (see paragraph 2.6 *supra*).

2.9 Consequently the problem has to be reformulated as to consist in the provision of alternative compositions suitable for controlling odour on a carpet or other fibrous material.

2.10 It remains to be decided whether or not the proposed solution to the objective technical problem mentioned above (see paragraph 2.9 *supra*) is obvious in view of the state of the art.

2.10.1 Document (7), which was cited in the patent in suit, relates to cleaning compositions for treating carpets. The compositions disclosed therein comprise stain-blocker chemicals. The content of document (7) was not disputed amongst the parties. Therefore, the provision of a further composition suitable for controlling odour by incorporating further additives, which are known to be common in the same technical field of carpet cleaning, in the present case the addition of stain-blocker chemicals as described in document (7), is rather an arbitrary variation within the routine of a skilled person, in particular, since no specific effect having been shown to be associated with the addition of the stain-blocker.

2.10.2 The Appellant I argued that since document (7) was silent on the problem of controlling odour the skilled

person would not have taken this document into consideration when looking for a solution to the problem of providing alternative compositions suitable for controlling odour.

However, since the problem of odour control is already solved by the presence of dormant bacteria as taught in the closest prior art Exhibit C, it is irrelevant that document (7) does not address the problem of odour control. The controlling of odour being already achieved by the presence of the dormant bacteria, there is no need for a skilled person to find a solution to the problem of odour control. Being faced with the objective technical problem of merely providing alternative compositions, while maintaining the odour control due to the presence of the dormant bacteria, the skilled person would necessarily consider the addition of any conventional additive used in the field of carpet cleaning compositions, thereby arriving without any inventive ingenuity at the solution proposed by the patent in suit.

2.10.3 Finally, the Appellant I argued that a skilled person would not have considered to add a stain-blocker chemical to bacterial compositions, since this would have led to an impaired association of the dormant bacteria to the carpet fibres.

However, there is nothing in the cited prior art teaching that the presence of a stain-blocker could impair the association of the dormant bacteria on the carpet fibres, which reduces the argument of Appellant I to mere speculation. Since there exists no dissuasive teaching in the prior art preventing the

skilled person from adding a conventional additive, such as a stain-blocker known from document (7), to the compositions known from Exhibit C the argument of the Appellant cannot succeed.

- 2.11 Therefore, the solution proposed in claim 13 to the objective technical problem underlying the patent in suit is obvious in the light of the prior art.
3. As a result, the main request of Appellant I is not allowable for lack of inventive step pursuant to Article 56 EPC. As claim 1 of the auxiliary request is identical to claim 13 of the main request (see paragraph 2.1 *supra*) it shares the same fate in that it too is not allowable for lack of inventive step pursuant to Article 56 EPC.

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

R. Freimuth