BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [X] To Chairmen and Members
(C) [ ] To Chairmen
(D) [ ] No distribution

D E C I S I O N
of 17 June 2004

Case Number: T 0500/00 - 3.3.7

Application Number: 93305382.9

Publication Number: 0584916

IPC: C09D 157/10

Language of the proceedings: EN

Title of invention:
Polymer for light-assisted curing of coatings and method for producing it

Patentee:
ROHM AND HAAS COMPANY

Opponent:
Clariant GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
"Disclaimer - originally disclosed (no)"
"Disclosure of prior art under Article 54(2) EPC - accidental (no)"
"Disclaimer - relevant to the assessment of inventive step (yes) - allowable (no)"

Decisions cited:
G 0001/84, G 0005/88, G 0009/93, G 0002/97, G 0001/03, G 0002/03, T 0004/80, T 0433/86, T 0170/87, J 0025/95

Catchword:
The principle of good faith cannot be invoked against the application of the principles concerning the allowability of disclaimers laid down in G 0001/03 to pending cases.

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0500/00 - 3.3.7

D E C I S I O N
of the Technical Board of Appeal 3.3.7
of 17 June 2004

Appellant: (Proprietor of the patent)
ROHM AND HAAS COMPANY
Independence Mall West
Philadelphia
Pennsylvania 19105 (US)

Representative:
Kent, Venetia Katherine
Rohm and Haas (UK) Ltd.,
European Patent Department,
28 Floor,
City Point,
One Ropemaker Street
London EC2Y 9HS (GB)

Respondent: (Opponent)
Clariant GmbH
Patente, Marken, Lizenzen
Am Unisys-Park 1
D-65843 Sulzbach (DE)

Representative:
Ackermann, Joachim, Dr.,
Patentanwalt Dr. Ackermann
Postfach 11 13 26
D-60048 Frankfurt am Main (DE)

Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 9 February 2000 revoking European patent No. 0584916 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: R. E. Teschemacher
Members: B. J. M. Struif
G. Santavicca

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 584 916 with respect to European patent application No. 93 305 382.9 filed on 8 July 1993 was published on 4 September 1996 on the basis of five claims. Claim 1 read as follows.

"A process of preparing a cured coating on a surface, the process comprising

a) mixing a vinyl polymer having acetoacetyl functional groups with an amount of ammonia or primary amine sufficient to convert the acetoacetyl groups to enamine;
b) storing the mixture to allow the reactants to equilibrate;
c) adding ammonia or primary amine to raise the pH to 9;
d) maintaining the pH at 9;
e) applying the coating to the surface; and
f) exposing the coated substrate to visible radiation, ultraviolet radiation or sunlight to produce the desired degree of curing;

wherein the vinyl polymer is free from contact with any component which generates a free radical on exposure to oxygen."

II. On 28 April 1997 a notice of opposition was filed, in which the revocation of the patent in its entirety was requested on the grounds of Article 100, paragraphs (a) and (c) EPC, with respect to lack of novelty, lack of an inventive step and extension of the subject-matter beyond the content of the application as originally

filed, respectively. The opposition was supported *inter alia* by the following document:

D1: EP-A-0 492 847

III. In a decision notified in writing on 9 February 2000, the opposition division revoked the patent. That decision was based on a set of claims 1 to 5 submitted during the oral proceedings as the sole request. Claim 1 differed from claim 1 as granted as follows:

- the term "preparing a cured coating" was replaced by the feature "improving the rate of coatings property development";

- The alternative "visible radiation" in feature (f) was cancelled.

The opposition division held that:

(a) The amended claims were in compliance with the requirements of Articles 84 and 123 EPC.

(b) D1 disclosed features (a) to (e) of the claimed process. Feature (f) was inevitably met when following the instructions given in D1, since the coatings were placed under ambient conditions on a laboratory benchtop for 28 days and would automatically be exposed to sunlight. Since the feature "desired degree of curing" had a relative meaning, it could be interpreted in its broadest sense. Thus, the cure obtained by exposing the films to adventitious sunlight on a benchtop according to D1 provided the desired degree of

curing. Therefore, the claimed subject-matter was not novel over D1 and the patent should be revoked.

IV. On 10 April 2000 the proprietor (appellant) filed a notice of appeal against the above decision, the prescribed fee being paid on the same day. With the statement setting out the grounds of appeal received on 6 June 2000, the appellant submitted a set of amended claims 1 to 5 as main request, which corresponded to the version underlying the decision under appeal, and a set of amended claims 1 to 13 as auxiliary request. By letter dated 4 May 2004, in reply to a communication of the board, the appellant submitted two sets of amended claims 1 to 5 as main and auxiliary requests replacing the previous requests.

In claim 1 of the main request compared to the granted version the alternative "visible radiation" in feature (f) was cancelled.

In claim 1 of the auxiliary request, additionally, the following further amendments were made:

- the feature "of wavelengths between 200 nm and 400 nm" was added after the term "ultraviolet radiation";

- the feature "including wavelengths from 295 nm to 400 nm" was added after the term "sunlight".

V. In a communication annexed to the summons to attend oral proceedings, the board mentioned the points to be discussed during the oral proceedings, including the admissibility of the disclaimer in claim 1 under

Article 123(2) EPC in view of decisions G 1/03 and G 2/03, both dated 8 April 2004, to be published in OJ EPO.

VI. Oral proceedings were held on 17 June 2004.

VII. The appellant argued in substance as follows:

The disclaimer at the end of claim 1 as granted was introduced in good faith during the examining proceedings since it was considered to be in line with the practice as laid down in the Guidelines for Examination in the European Patent Office (in the following: Guidelines) and the case law at that time. A patent was granted with the disclaimer and the opposition division did not object to this disclaimer. In its decision G 1/03, the Enlarged Board of Appeal had changed the practice and allowed disclaimers only in case of an accidental anticipation, without giving any transitional provisions. In any case, the core of D1 was to use autoxidizable components for curing, which was an unrelated or remote technical field from curing with radiation. Although the curing in both cases led to similar crosslinked polymers, the solutions to obtain them, were quite different. Furthermore, the application as filed showed that the claimed invention only concerned the use of radiation, in the context of which an autoxidizable component had never been considered. Thus, since the disclaimer was in line with the decision G 1/03, it was allowable.

VIII. The arguments of the respondent can be summarized as follows:

Claim 1 of the main and the auxiliary requests comprised a disclaimer which was not originally disclosed. According to decisions G 1/03 and G 2/03, a disclaimer might be admissible in order to restore novelty against an accidental anticipation under Article 54(2) EPC. Document D1, however, was no accidental anticipation within the meaning of those decisions. The proprietors knew D1, which was acknowledged in the application as filed. The technical field of the claimed subject-matter and that of the disclosure of D1 were closely related to each other and had the same problem in common. Furthermore, the curing in the patent in suit and in D1 led to a similar cross-linked polymer. Thus, the purpose of that disclaimer was to create distance from the disclosure of D1 and to provide arguments for inventive step. Furthermore, the disclaimer was not properly drafted and removed more than was necessary to restore novelty over D1. Consequently, the disclaimer was not allowable under Article 123(2) EPC.

IX. During the oral proceedings, after a deliberation of the board, the Chairman informed the parties of the conclusions of the board with respect to the objections under Article 100(c) EPC. In reply to a question of the chairman, the appellant said that he had no further submissions to make.

X. The appellant requests that the decision under appeal be set aside and that the European patent be maintained on the basis of either the main request or the auxiliary request, both filed with letter dated 4 May 2004.

XI. The respondent requests that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

Main and auxiliary requests

Article 123(2) EPC

2. The respondent objected that the amendment "wherein the vinyl polymer is free from contact with any component which generates a free radical exposure to oxygen", in granted claim 1 had not been originally disclosed.

2.1 That amendment was a disclaimer introduced by the appellant into claim 1 during the examining proceedings in response to an objection of lack of novelty based on D1. The first question to be answered is whether or not that amendment has a basis in the application as filed.

2.2 Although the appellant did not point out any specific disclosure in the application as filed as basis for the disclaimer, he argued that the whole application as filed only dealt with curing by radiation and did not consider curing by any other means.

2.2.1 Whereas the application as filed is directed to a polymer and a method for light-assisted curing of coatings (title, page 1 first paragraph), original claim 1 is directed to a process of preparing a composition for use as a coating for application to a substrate, which includes only steps (a) to (d) of

granted claim 1 and does not include any concept of light-assisted curing. Only dependent claim 3 is directed to a process of preparing a cured coating on a surface which includes exposing the coated substrate to ultraviolet light for a time sufficient to produce the desired degree of cure. Curing by ultraviolet light is covered by step (f) of granted claim 1. The originally claimed teaching is confirmed by the description wherein only the fourth aspect relates to curing the coated substrate by ultraviolet radiation (page 3, second paragraph). Although in the application as filed embodiments are disclosed which also use sunlight and visible radiation for curing (page 3, third and second paragraph from bottom; page 5, first to third full paragraphs), the broad concept as disclosed in the application as filed covers processes wherein light-assisted radiation is not the only essential means for curing.

2.2.2 Although the application as filed does not specifically disclose curing by means other than radiation, other curing means are within the broad concept of the application as filed due to the term "comprising", as used throughout the whole disclosure (claim 1, second line; claim 3, first line; page 3, second paragraph and page 5, first and second full paragraphs). That broad concept was the reason why the claimed subject-matter before introducing the disclaimer was objected to for lack of novelty by the examining division due to the expression "ambient conditions" disclosed in D1, even after incorporation of the limitation to radiation into claim 1 according to feature (f) (communication dated 22 May 1995). In reply to that communication, a

disclaimer based on D1 was introduced in claim 1, to provide a delimitation over the disclosure thereof.

2.2.3 From the above it follows that the appellant has deliberately introduced a disclaimer into claim 1 before grant in view of the broad concept he intended to protect, although there were other ways to restrict the claim by originally disclosed features. The disclaimer cannot directly and unambiguously nor implicitly be derived from the application as filed, so that it, therefore, is not originally disclosed (Article 123(2) EPC).

2.3 According to the appellant, the wording of the disclaimer was based on the disclosure of D1, in particular claim 1. Since D1 was published on 1 July 1992 before the claimed priority date (28 July 1992) of the patent in suit, it is state of the art under Article 54(2) EPC. Thus, the question arises under which requirements such a disclaimer might be allowable.

2.4 According to G 1/03, a disclaimer may be allowable in order to restore novelty by delimiting a claim against an accidental anticipation under Article 54(2) EPC; an anticipation is accidental if it is so unrelated and remote from the claimed invention that the person skilled in the art would have never taken it into consideration when making the invention (Headnote 2.1). Thus, the question arises whether or not the disclosure of D1 is accidental.

2.4.1 D1 discloses a self-crosslinking film-forming composition comprising a vinyl polymer containing pendant acetoacetate functionality and a component

which generates a free radical flux to oxygen, such as oxygen in the air (claim 1). According to D1, substantially all of the pendant acetoacetate functionality has been converted to or is present as pendant enamine functionality (claim 13). The component which generates a free radical flux is an autoxidizable component (claim 16), which may contain one or more sites of unsaturation (claim 17). Furthermore, the autoxidizable component may be incorporated into the vinyl polymer (claim 19).

2.4.2 According to D1 there is a drawback with regard to the use of vinyl polymers containing pendant acetoacetate groups, particularly when the polymers are dispersed or dissolved in aqueous solvents. In this regard, vinyl polymers containing pendant acetoacetate are prone to hydrolysis in water, particularly on heat aging. The hydrolysis reaction occurs at nearly any pH and yields acetoacetic acid which in turn decomposes to acetone and carbon dioxide. D1 seeks to overcome the problems associated with the known film forming polymers (page 2, lines 23 to 43).

2.4.3 Thus, according to D1, there is provided a method of stabilizing an acetoacetate functional polymer in water to prevent hydrolysis of the acetoacetate functionality prior to use comprising adding ammonia or primary amine in an amount sufficient to form the enamine of the acetoacetate functionality and then storing the resulting composition under conditions that prevent reversal of the enamine formation during storage (page 2, lines 50 to 54).

For curing, the autoxidizable component is added to the latex mixture and equilibrated prior to film application (examples, in particular, page 8, lines 46 to 48). The coated films are cured under ambient conditions on the laboratory benchtop for the duration of the tests (see examples, in particular page 8, lines 50 and 51). Since the curing performance of the crosslinked polymer in terms of MEK rub resistance, film soluble fraction and swell ratio (page 7, lines 33 to 52, examples) is tested after different time limits from 1 to 28 days (see examples), it is apparent that in D1 the curing rate is of importance.

2.5 The application as filed is directed to a process for improving the rate of coatings property development of coatings subjected to UV radiation or sunlight by providing coatings with an enamine content sufficient to enhance the cure rate of the coating (page 1, first paragraph). For further details reference is made to points 2.2.1 and 2.2.2 above. It has been undisputed that the application as filed and D1 have all features (a) to (e) of granted claim 1 in common and that both applications are directed to coating compositions which can be rendered quickly in a cured state.

2.5.1 The application as filed also acknowledges D1 (page 7, lines 1 to 5). According to that passage vinyl polymers containing pendant acetoacetate groups are prone to hydrolysis in water in particular on heat aging (compare page 6, last paragraph) which problem may be eliminated as taught in D1, by treating the aqueous acetoacetate polymer, after preparation and neutralization, with one molar equivalent of ammonia or primary amine such as ethanol amine, methyl amine,

isopropyl amine, or diglycol amine (page 7, lines 1 to 5). That acknowledgment is essentially identical with the teaching given in D1 itself (see points 2.4.2 and 2.4.3). However, in the application as filed, the cited passage neither mentions the relevant curing aspect in D1 nor provides any disclosure that autoxidizable components are excluded from the compositions to be used.

2.5.2 A comparison between the application as filed and D1 shows that not only the enamine containing starting polymers are the same but also the purpose and the problem of both applications, namely to render the composition in a cured state, are identical. Both parties agreed that the teachings essentially only differ from each other in the relevant nature of the curing, namely on the one hand curing by chemical means and on the other hand curing by radiation.

2.5.3 In the oral proceedings, the respondent stated that the same mechanism underlay curing by radiation according to the application as filed and by chemical means in D1, namely to provide radicals which enable a crosslinking between the enamine containing polymers, which led to similar end products. The appellant did not object to that argument.

2.5.4 Since curing by chemical means and curing by radiation are based on the same radical mechanism and have the same purpose, the skilled person may use both curing means together, for example, to accelerate the curing. Hence, the claimed solution shows an overlap with the teaching of D1.

2.5.5 This overlap of the claimed subject-matter compared with that of D1 is not only confirmed by the disclaimer but also by the following statements in the description introduced after the filing date: "We have discovered that such a component (component capable of generating free radicals) is unnecessary" (page 2, lines 35 and 36); "Polymerisation involving unsaturated fatty acids as surfactants produces polymers containing components capable of generating a free radical on exposure to oxygen, and are hence outside the scope of the invention" (page 5, lines 32 to 34). Furthermore, since according to D1 the autoxidizable component can be incorporated into the vinyl polymer (claim 19), it is not apparent that the present disclaimer sufficiently excludes that possibility.

Consequently, the appellant's arguments that curing by chemical means and curing by radiation relate to different technical fields which are so far and remote from each other that the skilled person will not consider D1 when making the invention, are not convincing.

2.5.6 The acknowledgement of D1 as a prior art document in the application as filed shows that the appellant was aware of the close relation between D1 and the application in suit. Moreover, the applicant and one of the inventors in D1 and in the application in suit are the same. The fact that the application as filed does not mention any differences to the curing in D1 shows that at the filing date, the applicant did not want to exclude other curing means, in particular those disclosed in D1.

2.5.7 From the above it follows that D1 and the application in suit concern the same technical field, have, except for the disclaimed component, identical compositions and relate to the same purpose of sufficient curing. Moreover, the same technical problem underlies both the patent in suit and D1. Since the skilled person will consider D1 as suitable prior art to make the invention, confirmed by the reference to D1 in the original application (page 7, lines 1 to 5), the disclosure of D1 cannot be considered as being accidental within the meaning of G 1/03.

2.5.8 Furthermore, since D1 relates to the same technical effect as the patent in suit, and since its starting polymers to be cured are structurally identical to those used in the claimed process, D1 can be considered as a suitable starting point for assessing inventive step (Case Law of the Boards of Appeal of the European Patent Office, 4th Edition 2001, I.D.3.1). Since by way of the disclaimer more distance from D1 is created, because the curing means are now focussed on radiation excluding specific chemical means, the disclaimer provides a contribution to the disclosure of the invention as well. Consequently, the disclaimer can be considered to be highly relevant to the assessment of inventive step and changes the content of the application as filed. In accordance with G 1/03 (points 2.6 and 2.6.1) in such a situation a disclaimer is not justified.

2.6 The appellant argued that the disclaimer had been made in good faith according to the Guidelines and in accordance with the practice of the boards of appeal at the time when making the disclaimer.

2.6.1 In accordance with established Case Law, the Guidelines are only general instructions intended to cover "normal" situations, which allows that even the examining or opposition division may depart from the EPO Guidelines within their discretionary power (see also Guidelines, General Part, 3.2). What counts is that a uniform application of the law is ensured and judged whether the division has acted in accordance with the EPC, not whether it acted in accordance with the Guidelines (Case Law, *supra*, VI.L.9). Furthermore, it is pointed out that the Guidelines are not rules of law (Case Law *supra*, VI.L.9).

2.6.2 These principles established by the boards of appeal can also be found in the Guidelines themselves according to which "for the ultimate provisions on the practice in the EPO, it is necessary to refer firstly to the European Patent Convention itself including the Implementing regulations and the Rule relating to fees and secondly to the interpretation put forward upon the Convention by the Boards of Appeal and the Enlarged Board of Appeal" (Guidelines, General Introduction, 1.2). From the above it follows that the Guidelines do not have any binding effect on the boards of appeal and do not establish any rules of law which may be relied on.

2.7 When introducing the disclaimer into claim 1 as granted, the appellant referred to the Guidelines C-VI,5.8b) (letter dated 28 September 1995). That part of the Guidelines makes reference to decision T 433/86 (EPOR 1988, 97). That decision states: "... when there is an overlap between the prior art and the claimed subject-

matter defined in generic terms, specific prior art may be excluded even in the absence of support for excluded matter in the original documents. Such an exclusion may be achieved by way of a disclaimer or preferably in positive terms if that leads to clearer and more concise language (cf. Decision T 4/80, "Polyetherpolyols/Bayer", OJ EPO 4/1982, 149)." (T 433/86, point 2.).

2.7.1 However, in T 4/80, referred to in T 433/86, the disclaimer concerns the subject-matter of an earlier, not prepublished national application or corresponding patent which situation is not comparable to the present case (compare headnote II.). Furthermore, a disclaimer as referred in T 433/86 is not allowable, if the subject-matter to be disclaimed is considered relevant to the assessment of inventive step (T 170/87, OJ 1989, 441, cited in Case Law, *supra*, III.A.1.6.3).

2.7.2 According to decision T 170/87, *supra,* rendered on 5 July 1988, long before the introduction of the disclaimer in 1995, a disclaimer is only justified on the following conditions; "the inventive teaching originally specifically disclosed is not changed as a whole merely by delimiting it with respect to the state of the art…"; "only the part of the teaching which the applicant cannot claim owing to lack of novelty … can be excised in the sense of a partial disclaimer" (point 8.4.3). In the present case, "... the insertion of a new feature is intended to remove an objection to lack of inventive step. The intention is therefore not to excise something from an inventive teaching originally disclosed but ... to bestow inventive quality on a thoroughly obvious teaching by

subsequently adding a feature which was not originally specifically disclosed. This would mean that the technical teaching contained in the original documents would be substantially modified. Because of the correlation between disclosure and protection of an invention, however, this can be no more permissible by way of a disclaimer than it would be in any other way" (point 8.4.4). Consequently, "a disclaimer can be used to make an inventive teaching which overlaps with the state of the art novel but it cannot make an obvious teaching inventive" (headnote).

From the above it follows that at the time when the disclaimer was introduced, the appellant could not expect that a disclaimer which was relevant for the assessment of inventive step and changed the technical information in the application as filed would be considered allowable (see also G 1/03, point 2.6).

2.8 The appellant's position that transitional provisions should be provided for in G 1/03 for those applicants who had relied in good faith on the previous EPO patent practice at the time when making the disclaimer prompts the following observations.

2.8.1 Firstly, the appellant did not have a reason to rely on previous case law in cases, in which the disclaimer was relevant to the assessment of inventive step as stated above under point 2.7.2. Secondly, the Enlarged Board of Appeal actually did not provide for a transitional provision. Therefore, this Board is bound to follow the Enlarged Board's ruling in the present case (see Article 16 Rules of Procedure of the Boards of Appeal).

2.8.2 Finally, the development of the case law regarding disclaimers does not justify invoking the principle of good faith. It is true that this principle is well established in the application of the EPC (G 2/97, OJ EPO 1999, 123, Reasons, point 1). It implies that measures taken by the EPO should not violate the reasonable expectations of parties to proceedings before the EPO (G 5/88, OJ EPO 1991, 137, Reasons, point 3.2). The Enlarged Board has applied this principle to the effect of its decisions. In case G 9/93 (OJ EPO 1994, 891) it overturned its ruling in G 1/84 (OJ EPO 1985, 299). Since in pending cases patent proprietors relying on G 1/84 had every reason to expect that self-opposition would be considered admissible it was inequitable in the Enlarged Board's opinion to prevent them from continuing proceedings they had embarked on in good faith and which could not adversely affect the rights of any third party. However, at the same time the decision emphasizes that equitable reasons for such a transitional rule may exist on purely procedural issues and that the general rule is that the law has always been in conformity with its later interpretation by the Enlarged Board (*supra*, Reasons, point 6.1). The question to which extent an application may be amended is a question of disclosure affecting not only the interpretation of Article 123(2) EPC but *inter alia* also of Articles 54 and 83 EPC. Therefore, it is a question of substantive law which cannot be interpreted differently depending on the date on which the disclaimer was introduced.

2.8.3 For the sake of completeness, it should be added that a single decision of a Board of Appeal, as in the present case T 433/86 (*supra*), cannot create a legitimate

expectation that it will be followed in future, even if it is cited in the Guidelines (see J 25/95 of 20 August 1997 and the further decisions cited in Case Law, *supra,* VI.A.1, paragraph bridging pages 252 and 253 of the English edition).

2.8.4 Consequently, the principle of good faith cannot be invoked against the application of the principles concerning the allowability of disclaimers laid down in G 1/03 to pending cases.

2.9 From the above it follows that the principles laid down in G 1/03 are to be applied to the present case. Since the disclosure in D1 cannot be considered as accidental within the meaning of the decision G 1/03, the disclaimer is not allowable under Article 123(2) EPC.

2.10 Consequently, since both requests include an unallowable disclaimer, none of the requests meets the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Eickhoff R. Teschemacher