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D E C I S I O N
of 11 January 2000

Case Number: T 0561/97 - 3.2.5

Application Number: 91118185.7

Publication Number: 0482653

IPC: B41N 3/08

Language of the proceedings: EN

Title of invention:

Plate surface correcting solution for dry lithographic
printing plate

Patentee:

Fuji Photo Film Co., Ltd.

Opponent:

Hoechst Aktiengesellschaft

Headword:

-

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (yes)"

Decisions cited:

-

Catchword:

-



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Boards of Appeal

Chambres de recours

Case Number: T 0561/97 - 3.2.5

D E C I S I O N
of the Technical Board of Appeal 3.2.5
of 11 January 2000

Appellant: Hoechst Aktiengesellschaft
(Opponent) Zentrale Patentabteilung
Standort Kalle-Albert
65174 Wiesbaden (DE)

Representative: -

Respondent: Fuji Photo Film Co., Ltd.
(Proprietor of the patent) 210 Nakanuma
Minamiashigara-shi
Kanagawa-ken (JP)

Representative: Grünecker, Kinkeldey,
Stockmair & Schwanhäusser
Anwaltssozietät
Maximilianstrasse 58
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 20 March 1997
rejecting the opposition filed against European
patent No. 0 482 653 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: A. Burkhart
Members: P. E. Michel
M. J. Vogel

Summary of Facts and Submissions

- I. The appellant (opponent) lodged an appeal against the decision of the Opposition Division maintaining the patent No. 0 482 653.

Opposition was filed against the patent as a whole based on Article 100(a) EPC (lack of inventive step).

The Opposition Division held that the grounds of opposition did not prejudice the maintenance of the patent as granted having regard to the following documents:

D1: EP-A-0 126 192

D2: Ullmann's Encyklopädie der technischen Chemie, 4th edition, vol. 21 (1982), pages 522 and 523, D3 Comprehensive Polymer Science: The Synthesis, Characterisation, Reactions & Applications of Polymers, vol. 5 (1989), page 602

D4: Römpps Chemie-Lexikon, 7th edition, vol. 6, page 3612.

- II. Oral proceedings were held before the Board of Appeal on 11 January 2000.

- (i) The appellant requested that the decision under appeal be set aside and the patent be revoked.
- (ii) The respondent (patentee) requested that the appeal be dismissed.

(iii) The patent as granted includes a single independent claim which reads as follows:

A process of correcting a dry lithographic printing plate which comprises applying to an unwanted area of an ink-accepting area in the dry lithographic printing plate consisting of ink-repellent areas comprising a silicone rubber layer and ink-accepting area, a correcting solution comprising following components:

| | amount (parts by weight) |
|--|--------------------------|
| (a) Linear organopolysiloxane having three alkoxy groups at both terminal ends | 100 |
| (b) Titanium based condensation catalyst | 0.1 to 5 |
| (c) Organic solvent | 100 to 5,000 |

III. The appellant argued essentially as follows:

Novelty of the subject-matter of claim 1 is not in dispute. The sole ground of opposition is lack of inventive step. The closest state of the art is represented by D1. Claim 1 differs from the disclosure of this document solely in that the catalyst is a titanium based catalyst. The use of a titanium catalyst is, however, well known in the art and recommended in D2 at page 523. As illustrated in the comparative tests carried out by the appellant, worse results are achieved when using a titanium catalyst than when using a tin based catalyst. Whilst the tests do not relate to solutions containing a diorganopolysiloxane having no functional groups or having functional groups at one end only in addition to the organopolysiloxane having

three alkoxy groups at both terminal ends, as required by D1, they show that titanium catalysts are less effective than tin catalysts.

IV. The respondent argued essentially as follows:

It is accepted that the closest state of the art is represented by D1. The subject-matter of claim 1 differs from the disclosure of D1 not only in that a titanium based catalyst is used, but also in that a single organopolysiloxane is used. The solution according to the invention thus requires the presence of fewer compounds and accordingly possesses the advantage that it is simpler to produce.

In view of the conflict between the experimental results of the appellant and the experimental results of the respondent, it is necessary to give the benefit of doubt to the patentee.

In view of the use of the word "comprising" in claim 1, the claim does not exclude the possibility that more than one organopolysiloxane is present in the solution, although the disclosure of the patent in suit makes it clear that the presence of a diorganopolysiloxane having no functional groups or having functional groups at one end only in addition to the organopolysiloxane having three alkoxy groups at both terminal ends is not necessary.

Reasons for the Decision

Inventive step

1. *Closest prior art*

The closest prior art is represented by document D1. This document discloses a coating composition for use in the field of printing. In particular, the composition can be used in a method for correcting an image area of a dry planographic printing plate (page 2, lines 61 and 62). The coating composition comprises

- (a) a diorganopolysiloxane having 1 to 3 functional groups at each of both ends,
- (b) a diorganopolysiloxane having no functional groups or having functional groups at one end only, and
- (c) a cross-linking agent having two or more functional groups capable of undergoing condensation or addition reaction with the functional groups.

The importance of the presence of the diorganopolysiloxane having no functional groups or having functional groups at one end only (component (b)) is emphasised at page 4, lines 44 to 52. In the absence of this component, the resulting coating has low adhesion and low durability.

The coating composition may also include an organometallic catalyst and an organic solvent. Examples of catalysts are organic carboxylic acid salts of metals such as tin, zinc, lead and platinum.

2. *Problem underlying the invention*

The correcting solution disclosed in D1 is complicated by virtue of the presence of two diorganopolysiloxanes and a cross linking agent. Thus, a problem associated with D1 is to provide a method of correcting a dry lithographic printing plate utilising a correcting solution having a less complicated formulation, whilst retaining the desirable qualities of the solution of D1, that is, prompt curing at room temperature, good adhesion to dry lithographic printing plates and good durability during printing.

3. *Solution*

According to claim 1, the above problem is solved in that a titanium based catalyst is used. According to the experimental data contained in the patent in suit and filed by the patentee in the proceedings before the opposition division, satisfactory results are obtained when using a solution in an organic solvent containing a single organopolysiloxane having three alkoxy groups at each of both terminal ends and a titanium based condensation catalyst. In particular, it is stated that curing occurs over a period of ten minutes at room temperature, the resulting coating is resistant to peeling and at least 50,000 good prints may be produced. The desirable qualities of the solution of D1 are thus retained whilst the presence of a diorganopolysiloxane having no functional groups or having functional groups at one end only is unnecessary.

Although the documents D2 to D4 indicate that titanium based catalysts are known to be suitable as a condensation catalysts for alkoxy silane elastomers, there is no

indication that they might be capable of solving the above problem. The person skilled in the art thus has no incentive to try a catalyst other than those disclosed in D1.

The tests supplied by the appellant are not regarded as being relevant to the question of inventive step. Examples of processes of correcting dry lithographic printing plates using coating compositions as claimed in claim 1 of the patent in suit are compared with processes using similar compositions incorporating tin rather than titanium based catalysts. The solutions used in processes according to the invention are thus not compared with processes using compositions representative of those disclosed in the closest prior art (D1), but rather compositions chosen with hindsight knowledge of the subject-matter of the patent in suit. Thus, these tests do not allow a comparative evaluation of the effects of the compositions of D1 and those of the patent in suit.

Whilst the tests carried out by the appellant appear to contradict those carried out by the respondent insofar as they appear to demonstrate that extremely poor results are obtained when using formulations according to the invention of the patent in suit, the Board does not possess any evidence which would enable this conflict to be resolved. Moreover, the Board does not consider it necessary to resolve this conflict, since - as stated above - the disclosures of the prior art documents do not render obvious the process of claim 1 of the patent in suit.

The subject-matter of claim 1 thus involves an inventive step. Claims 2 to 5 are appendant to claim 1 and similarly involve an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

A. Townend

A. Burkhart