DECISION
of 31 July 2006

Case Number: T 0624/03 - 3.2.05
Application Number: 96104049.0
Publication Number: 0732219
IPC: B41M 5/00
Language of the proceedings: EN

Title of invention:
Printing medium, and ink-jet printing process and image-forming process using the same

Patentee:
CANON KABUSHIKI KAISHA

Opponent:
Zanders Feinpapiere AG
Degussa AG

Headword:

Relevant legal provisions:
EPC Art. 84, 104(1)
EPC R. 67

Keyword:
"Lack of clarity (yes)"
"Reimbursement of appeal fee (no)"
"Different apportionment of costs (no)"

Decisions cited:

Catchword:

Decision of the Technical Board of Appeal 3.2.05 of 31 July 2006

Appellant: CANON KABUSHIKI KAISHA
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Representative: Leson, Thomas Johannes Alois, Dipl.-Ing.
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Respondent I: Zanders Feinpapiere AG
(Opponent 01) An der Gohrmühle D-51465 Bergisch Gladbach (DE)

Representative: -

Respondent II: Degussa AG
(Opponent 02) Rodenbacher Chaussee 4 Postfach 1345 D-63403 Hanau-Wolfgang (DE)

Representative: -

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 13 March 2003 revoking European patent No. 0732219 pursuant to Article 102(1) EPC.

Composition of the Board:
Chairman: W. Moser
Members: W. Widmeier
W. R. Zellhuber
Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal against the decision of the Opposition Division revoking European patent No. 0 732 219.

The Opposition Division held that the subject-matter of claim 1 received on 10 February 2003 lacked novelty.

II. Oral proceedings were held before the Board of Appeal on 14 July 2005.

III. The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the following documents:

(i) claims 1 to 26 filed as main request on 14 June 2005; or

(ii) claims 1 to 22 filed as first auxiliary request on 14 June 2005; or

(iii) claims 1 to 22 filed as second auxiliary request on 14 June 2005; or

(iv) claims 1 to 21 presented as third auxiliary request during oral proceedings.

The appellant further requested that the appeal fee be reimbursed due to an alleged substantial procedural violation in the opposition proceedings.

IV. Respondents I and II (opponents 01 and 02) requested that the appeal be dismissed, and that the request for
reimbursement of the appeal fee be refused. As an auxiliary request, they requested that the appeal proceedings be continued in writing. As a further auxiliary request, respondent I requested that a different apportionment of costs be ordered.

V. In the oral proceedings the Board decided to refuse the main request and the first and second auxiliary requests of the appellant and to continue the appeal proceedings in writing.

VI. By a communication of the Board dated 20 July 2005, the appellant was requested to supply evidence that an impregnation within the meaning of claim 1 of the third auxiliary request was a structural feature of the claimed printing medium, and to submit an adapted description. Furthermore, respondents I and II were requested to supply evidence that the disclosure on page 5, lines 31 to 33, and page 14, lines 27 to 32, of document Z1 related to an impregnation within the meaning of claim 1 of the third auxiliary request.


VIII. Claim 1 of the main request reads as follows:

"1. A printing medium, comprising a liquid-absorbent paper base material, an ink-receiving layer provided on the base material, which is mainly composed of a
pigment, a binder and a cationic substance, and a surface layer provided on the ink-receiving layer mainly composed of cationic ultrafine particles as inorganic particles having a particle diameter within a range of from 1 nm to 500 nm, wherein the surface layer has a 75 ° specular glossiness of 45 % or higher, and wherein the base material is made non-swelling."

Claim 1 of the first auxiliary request is supplemented with respect to claim 1 of the main request after "non-swelling" by: "by impregnating said base material with a crosslinking substance to crosslink it".

Claim 1 of the second auxiliary request is supplemented with respect to claim 1 of the first auxiliary request by the insertion between the terms "base material" and "is made non-swelling": ", which is composed principally of fibrous pulp and a filler".

Claim 1 of the third auxiliary request reads as follows:

"1. A printing medium, comprising a liquid-absorbent paper base material, an ink-receiving layer provided on the base material, which is mainly composed of a pigment, a binder and a cationic substance, and a surface layer provided on the ink-receiving layer mainly composed of cationic ultrafine particles as inorganic particles having a particle diameter within a range of from 1 nm to 500 nm, wherein the surface layer has a 75 ° specular glossiness of 45 % or higher, and wherein the base material, which is composed principally of fibrous pulp and a filler impregnated with a crosslinking substance and said crosslinking substance is crosslinked with a crosslinking agent."
IX. This decision refers to the following documents:


F1 to F3: Figures 1 to 3, filed by the appellant on 29 November 2005, representing comparative illustrations clarifying the structural differences between the claimed printing medium and a prior art medium as disclosed in document Z1

X. The appellant argued essentially as follows:

The term "non-swelling" in claim 1 of the main request and the first and second auxiliary requests is clear. A person skilled in the art will understand this expression such that it shall be avoided that the paper base material swells. Moreover, paragraphs [0051], [0052] and [0067] of the description of the patent in suit explain clearly what is meant by "non-swelling". Paragraph [0067] also shows that liquid-absorbent and non-swelling is not contradictory. Porous material can absorb liquid without changing its volume.

The feature of claim 1 of the third auxiliary request that the base material is impregnated with a crosslinking substance and said crosslinking substance is crosslinked with a crosslinking agent is clear. A person skilled in the art knows which substances are used as crosslinking substances and which substances may be used as a crosslinking agent. Paragraph [0062] of the patent in suit explains how this feature is realized. Furthermore, this feature is a structural
feature of the claimed printing medium. The crosslinking materials come close to each fiber and thus each fiber is impregnated while maintaining the ink absorbent property of the paper base material. In contrast thereto, the size-pressing disclosed in document Z1 forms an additional layer which reduces the absorbency of the paper base material. This is illustrated in documents F1 to F3. It is therefore possible to distinguish a printing medium according to claim 1 of the third auxiliary request from a printing medium made in accordance with the teaching of document Z1. Thus, claim 1 of the third auxiliary request meets the requirements of Article 84 EPC.

In the opposition procedure the Opposition Division committed a substantial procedural violation which justifies reimbursement of the appeal fee. In the oral proceedings the Opposition Division refused to admit a new main and a new auxiliary request which were intended to overcome formal objections raised by the Opposition Division and patentability and priority objections raised four days prior to the oral proceedings by respondent I. Thus, although late filed, these new requests should have been admitted into the proceedings. Their rejection by the Opposition Division was an infringement of the appellant's right to be heard.

XI. Respondents I and II argued essentially as follows:

The expression "non-swelling" in claim 1 of the main request and the first and second auxiliary requests is not clear. The amount of swelling up to which a material is to be considered non-swelling is not
specified. If a zero volume change is meant by non-
swelling, then an indication of the time during which
the volume does not change is missing. Moreover, there
is a contradiction. The claims specify that the paper
base material is liquid-absorbent. Thus, it may not at
the same time be non-swelling. Paragraph [0051] of the
patent in suit shows that an absorbing material swells.

The substances used as crosslinking substances and as
crosslinking agents are unclear. It also is not clear
what has to be understood by the term "impregnated"
because paragraph [0056] of the patent in suit speaks
of "impregnated with" and paragraph [0064] of
"impregnated into". Furthermore, the impregnation
according to claim 1 of the third auxiliary request is
not a structural feature of the printing medium of this
claim by which it is possible to distinguish this
printing medium from another one, for example, from a
printing medium produced according to document Z1. For
these reasons, claim 1 of the third auxiliary request
does not meet the requirements of Article 84 EPC.

Although the Opposition Division rejected in the oral
proceedings the appellant's new main and new auxiliary
request, the appellant was allowed to amend his
existing main request so that it corresponded to the
rejected new main request. The new auxiliary request
was correctly rejected under Rule 71a EPC. Thus, no
substantial procedural violation, which would justify
reimbursement of the appeal fee, occurred during the
opposition procedure.
Reasons for the Decision

1. Main request, first and second auxiliary requests

Whilst it may well be that a liquid absorbing material does not immediately swell when absorbing liquid, this cannot be true for any amount of absorbed liquid and over any period of time. It is therefore not clear which meaning the specification "is made non-swelling" in claim 1 of the main request and the first and second auxiliary requests is supposed to have. If the expression "non-swelling" is to be understood as a zero volume change of the paper base material, then the amount of liquid absorbable and/or the absorbing time before a volume change occurs must additionally be specified in the claim. If "non-swelling" is to be understood as a volume change up to a certain (small) extent, then this extent must be specified in the claim. However, claim 1 of the main request specifies only that the base material is made non-swelling without indicating the further conditions which are necessary in order to enable a person skilled in the art to distinguish the printing medium of this claim from another printing medium.

The supplement to this feature in claim 1 of the first auxiliary request, according to which the paper base material is made non-swelling by an impregnation with a crosslinking substance, cannot clarify the term "non-swelling", because the effect of this impregnation on the swelling properties of the base material is not further specified. The same applies to the supplementary specification of the paper base material of claim 1 of the second auxiliary request. From the
feature that this material is principally composed of fibrous pulp and a filler, one cannot infer an unambiguous interpretation of the term "non-swelling".

The subject-matter of claim 1 of the main request and of the first and second auxiliary requests thus does not meet the requirements of Article 84 EPC.

2. Third auxiliary request

Claim 1 relates to a printing medium and comprises, among apparatus features, a process feature, i.e. the feature that "the base material ... is impregnated with a crosslinking substance and said crosslinking substance is crosslinked with a crosslinking agent". In order to enable a comparison of the subject-matter of claim 1 with another printing medium, this process feature must result in an unambiguous structural feature of the printing medium. It is to be noted that claim 1 does not further specify which substance is the crosslinking substance and which substance is the crosslinking agent and that the claim does not exclude certain substances. The removal of an embodiment with a hydrogen bonding of crosslinking substance and crosslinking agent from the description, as made by the appellant with amended page 7 of the patent in suit, cannot limit the scope of protection of claim 1. Anyway, the impregnation under dispute is not a matter of novelty or inventive step of the subject-matter of claim 1; it is a matter of clarity because, if a process feature of an apparatus claim is not reflected by a structural feature of the subject-matter of this claim, then this feature is not part of the claimed subject-matter, so that a person skilled in the art is not able to discern whether or
not a given subject-matter falls under the scope of this claim.

Document F1 is supposed to demonstrate the fibre constitution of the paper base material prior to the impregnation, document F2 is supposed to demonstrate the fibre constitution of the paper base material of claim 1 after the impregnation, and document F3 is supposed to demonstrate the fibre constitution of a paper base material which was treated according to the teaching of document Z1. However, documents F1 to F3 are schematic illustrations drafted by the appellant with the intention to demonstrate differences between document Z1 and the subject-matter of claim 1 rather than the result of an analysis of real samples of the respective paper base materials. These documents are merely hypothetical and cannot therefore be used as evidence that the impregnation according to claim 1 results in a distinctive structural feature of the printing medium and that a paper base material according to claim 1 may be distinguished from a paper base material according to document Z1.

The appellant failed to prove that in any case, i.e. for any crosslinking substance, any crosslinking agent and any crosslinking method covered by the wording of claim 1, the finished printing medium comprises a structural feature reflecting the impregnation according to the process feature of claim 1 and distinguishing it from other printing media.

In the absence of any evidence that the impregnation of the paper base material according to claim 1 is a structural feature of the claimed printing medium, it
is irrelevant whether or not the substances mentioned in paragraphs [0057], [0058] and the size-pressing mentioned in paragraph [0063] of the patent in suit have the same result as the process and substances mentioned on page 5, lines 25 to 37, and page 14, lines 27 to 35, of document Z1. Because of missing distinctive structural features the subject-matter of claim 1 is to be considered to lack clarity so that it does not meet the requirements of Article 84 EPC.

3. **Reimbursement of the appeal fee**

The Opposition Division rejected the appellant's main request submitted during oral proceedings in the opposition procedure. However, the Opposition Division allowed the appellant to amend three claims of his existing main request. With these amendments, these three claims corresponded to the respective claims of the rejected new main request. By this way, the appellant was allowed to correct deficiencies of these three claims which would have led to the revocation of the patent under formal aspects, whilst at the same time it was avoided to enter into the necessary and time consuming examination of all claims of the new main request submitted in the oral proceedings.

The Opposition Division also rejected the appellant's auxiliary request submitted during oral proceedings for the reason that it was late filed. As at that time the time limit set under Rule 71a EPC had already been expired, the Opposition Division was entitled to reject this request, irrespective of whether or not objections which had been raised before are met.
The Board is therefore satisfied that, by rejecting the appellant's late filed requests, the Opposition Division exercised its discretion under Rule 71a EPC correctly, and that it did not commit a substantial procedural violation. Reimbursement of the appeal fee under Rule 67 EPC is thus unfounded.

4. Costs

During oral proceedings, respondent I requested as an auxiliary measure that the appeal proceedings be continued in writing on the grounds that he did not have the opportunity to search for prior art concerning the crosslinking-feature of claim 1 of the third auxiliary request. At the same time, respondent I requested a different apportionment of costs if the proceedings should be continued in writing. However, it remains unclear whether these contradictory requests are based on the argument that, in case the proceedings were to be continued in writing, oral proceedings and the costs involved could have been dispensed with, so that the Board came to the conclusion that the request for a different apportionment of costs was not sufficiently substantiated. In addition, in the Board's judgement, there are no reasons in the present case, such as late submissions of documents, requests, facts, evidence or arguments, withdrawal of requests, abuse of the procedure, etc., to justify a different apportionment of costs in accordance with Article 104(1) EPC, as requested by respondent I. Each party shall therefore meet its own costs.
Order

For these reasons it is decided that:

1. The appeal is dismissed.

2. The request of respondent I for a different apportionment of costs is refused.

The Registrar: The Chairman:

E. Görgmaier W. Moser