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Datasheet for the decision of 10 June 2008

Case Number: T 1467/05 - 3.3.01

Application Number: 94919468.2

Publication Number: 0714422

IPC: C09D 11/02

Language of the proceedings: EN

Title of invention:
Liquid ink jet ink

Patentee:
TONEJET CORPORATION PTY. LTD.

Opponent:
Spadaro, Marco

Headword:
Jet ink/TONEJET

Relevant legal provisions:
EPC Art. 100(c)
RPBA Art. 15(3)

Relevant legal provisions (EPC 1973):
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Keyword:
"Amendment admissible (no) - specific value indicated in an example not trustworthy"

Decisions cited:
G 0003/89

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1467/05 **-** 3.3.01

D E C I S I O N
of the Technical Board of Appeal 3.3.01
of 10 June 2008

Appellant: (Patent Proprietor)
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Representative:
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Respondents: (Opponent)
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Representative:
-

Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 29 September 2005 revoking European patent No. 0714422 pursuant to Article 102(1) EPC 1973.

Composition of the Board:

Chairman: P. Ranguis
Members: C. M. Radke
D. S. Rogers

Summary of Facts and Submissions

I. The proprietor of the patent appealed against the decision of the opposition division revoking European patent no. 0 714 422.

II. The decision under appeal is based on claims 1 to 23 as granted.

Independent claim 1 reads as follows:

"1. An ink jet ink composition having an electrical resistivity of at least 10^9 ohm.cm, comprising:
(a) a liquid having an electrical resistivity of at least 10^9 ohm.cm;
(b) insoluble chargeable marking particles, in an amount of 0.5 to 30% by weight of the composition; and
(c) a particle charging agent, in an amount of 0.5 to 5% by weight of the composition;
wherein the marking particles are capable of being charged and concentrated into agglomerations of the particles and ejected from the ink in an ink jet printing apparatus in the presence of an electrostatic field."

III. The opponent sought revocation of the patent in suit based on grounds under Article 100 (a), (b) and (c) EPC.

IV. The opposition division decided that the subject-matter claimed gave rise to objections based on grounds under Article 100 (b) EPC (see points 3 and 6 of the reasons).

The opposition division considered the amendment in claim 1 - the replacement of the range "0.**0**5% to 5% by weight" by "0.5% to 5% by weight" - to be admissible under Article 123 (2) EPC and to have a basis in original claim 1 and example 3 as originally filed (see point 2 of the reasons). It concluded that the objection based on grounds under Article 100 (c) EPC was not justified.

V. In a communication annexed to the summons to oral proceedings, the Board summarised the issues to be discussed, inter alia relating to the ground for opposition under Article 100 (c) EPC.

VI. The Appellant argued that example 3 of the application as originally filed formed the basis for the amendment in claim 1 in that it disclosed "... a particle charging agent content of 0.5% ...". He considered the entirety of the component "Nuodex Zirconium 6%" used in this example, and not only the zirconium octanoate contained therein, as the particle charging agent. The Respondent had not shown, so he argued, that any other component of example 3 could be considered as the particle charging agent. Nor did the Appellant believe that the polyethylene wax or the polymer ELVAX 210 used in this example assisted in the charging of the marking particles. Otherwise, so he argued, the example would be internally inconsistent.

The Appellant stated that "Nuodex Zirconium 6%" was a solution of zirconium 2-ethylhexanoate in white spirit, said solution containing 6% by weight of zirconium.

The Appellant stated that he had repeated original example 3 with the exception that the white spirit was removed from "Nuodex Zirconium 6%" prior to adding it to the composition. He claimed that a comparison of this test with that of the original example showed that the white spirit also acted as a particle charging agent and was not simply an inert component of "Nuodex Zirconium 6%".

VII. The Respondent argued that there was no basis in the application as filed for the concentration of "0.5 % ... by weight of the composition" of the particle charging agent as defined in claim 1. As "Nuodex Zirconium 6 %" employed in example 3 was a solution of a metal soap in white spirit containing only six percent of metal, the concentration of particle charging agent in this example was well below 0.5 % by weight.

VIII. The Appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of the claims as granted and a description in which example 3 was deleted.

The Respondent requested in writing that the appeal be dismissed.

IX. The Respondent did not appear at the oral proceedings as confirmed in his letter dated 3 June 2008. Hence, the oral proceedings were held in his absence (see Article 15 (3) of the Rules of Procedure of the Boards of Appeal, OJ EPO 11/2007, 536).

X. At the end of the oral proceedings the decision of the Board was announced.

Reasons for the Decision

1. The appeal is admissible.

2. *Article 100 (c) EPC*

2.1 Present claim 1 requires the presence of "... a particle charging agent in an amount of 0.5% to 5% by weight of the composition; ...".

2.2 The application as originally filed discloses concentrations of the particle charging agent ranging from 0.05 to 5%, with a preferred range of from 0.1% to 1% by weight of the composition (see claims 4 and 5 and page 5, lines 9-11).

Example 3 of the application as originally filed lists as components of the ink composition

- 194 g of sunflower oil,
- 3 g of "Microlith Blue 4GT",
- 1 g of polyethylene wax,
- 1 g of "ELVAX 210", and
- 1 g of "Nuodex Zirconium 6%".

The last paragraph of the example mentions that the composition is "... a blue ink with a marking particle content of 2%, a particle charging agent content of 0.5% ..." (see page 9, lines 25-27).

2.3 This paragraph is the only part of the application as filed mentioning a content of particle charging agent of 0.5% based on the weight of the composition, i.e.

the lower end point of the range indicated in present claim 1 (compare page 8, lines 19-20; page 9, lines 8-9; page 10, lines 19-20, page 11, lines 4-5 and 25-26 and page 12, line 10).

2.4 Hence, it is to be assessed whether or not the person skilled in the art would have objectively derived said value of 0.5% directly and unambiguously from the application as filed in general and from its example 3 in particular, using common general knowledge at the date of filing (see G 03/89, OJ EPO 1993, 117, point 6 of the reasons).

2.5 The person skilled in the art would not see the paragraph cited under point 2.2 above in isolation but in the context of the example to which it belongs, taking into account the general information and the definitions given in the application as filed as a whole.

2.5.1 According to the application as filed, "Nuodex Zirconium 6%" used in example 3 is a "a zirconium octoate nade by Hûls America Inc."(*sic*)(see page 8, line 13; more correctly called "zirconium octanoate") which is a metal soap. Metal soaps in general and the zirconium salt of 2-ethyl hexanoic acid (i.e. a specific zirconium octanoate) in particular are preferred particle charging agents (see claim 8 and page 6, lines 31-35 of the application as filed).

Hence, the person skilled in the art would have concluded that the zirconium octanoate contained in "Nuodex Zirconium 6%" was a particle charging agent.

However, he would not rule out that the term "6%" in the trade name "Nuodex Zirconium 6%" indicated a concentration, so that the zirconium octanoate might not be the only component of "Nuodex Zirconium 6%". That means that it could contain other components which might or might not be considered as particle charging agents.

Consequently, the person skilled in the art would have derived directly and unequivocally from the application as filed that at least the zirconium octanoate contained in "Nuodex Zirconium 6%" used in example 3 was to be considered as the particle charging agent. However, he would **not** have **unambiguously** derived from the application as filed that the **total** amount of "Nuodex Zirconium 6%" served as a particle charging agent.

2.5.2 As is apparent from point 2.4 above, only the disclosure of the application as filed as read and understood by the person skilled in the art in combination the common general knowledge available to her or him at the date of filing may be taken into account when deciding whether or not an objection under Article 100 (c) EPC against an amendment is justified.

The Appellant argued that both the zirconium octanoate and the white spirit contained in "Nuodex Zirconium 6%" were to be considered as particle charging agents (see the third paragraph under point VI above).

The application as filed does not disclose that "Nuodex Zirconium 6%" contains white spirit, and the parties have not provided evidence showing that the presence of

white spirit in "Nuodex Zirconium 6%" belonged to the common general knowledge of the person skilled in the art. Hence, this argument appears to be mere speculation and does not give the Board any further facts which can be considered when assessing whether the ground for opposition under Article 100 (c) EPC prejudices the maintenance of the patent.

2.5.3 Moreover, the Appellant stated that white spirit was a petroleum distillate containing C_7 to C_{12} hydrocarbons (see his letter dated 12 May 2008, page 2, fourth paragraph). Such a distillate unambiguously falls under the definition of the liquid, i.e. component (a) as defined in the application as originally filed, which may be any suitable liquid having the required electrical resistance and which may include aliphatic and aromatic hydrocarbons (see page 5, lines 15-29 of the application as originally filed). White spirit clearly does not fall under the examples of particle charging agents given in the application as originally filed (see page 6, line 32 to page 7, line 5, where the only liquids mentioned are polar solvents such as alcohols, ketones and esters). Hence, the person skilled in the art would have considered not "Nuodex Zirconium 6%" as a whole, but only the zirconium octanoate contained therein as a particle charging agent. This would have been the case even under the assumption that the skilled person in the art knew that "Nuodex Zirconium 6%" contained white spirit.

2.5.4 Furthermore, while zirconium octanoate is considered to act as a particle charging agent in example 3 of the application as filed, it might not be the only component of this example to do so.

A polyethylene wax is a vinyl resin. Due to its waxy consistency, i.e. its low molecular weight, the person skilled in the art could not exclude that it is at least partially soluble in sunflower oil, i.e. in the liquid used in this example.

Soluble or partially soluble vinyl resins are listed among the preferred particle charging agents in claim 9 as originally filed.

Hence, the person skilled in the art could not have excluded that the polyethylene wax used in example 3 as originally filed might serve as a particle charging agent, rendering still more unclear the amount of particle charging agent used in example 3.

The Appellant doubted that polyethylene wax was suitable for this purpose (see the first paragraph under point VI above).

Whether or not polyethylene wax indeed actually assists in the charging of the marking particles is, however, not relevant for the present decision.

What counts is that the person skilled in the art could have considered polyethylene wax as a particle charging agent.

Thus from example 3 which contains a total of 200 g of material the person skilled in the art would have derived the information that at least 6% of the 1 g of "Nuodex Zirconium 6%" was a particle charging agent and that perhaps the 1 g of polyethylene wax was a particle

charging agent. This would have appeared to the person skilled in the art to not correspond to a 0.5% weight content of particle charging agent and he would have thus not considered this value as reliable or directly derivable from the example.

2.6 It follows from the conclusions drawn under points 2.5.1 and 2.5.4 above that the person skilled in the art could not have derived directly and unambiguously from the application as filed a concentration of 0.5% by weight of the particle charging agent in the composition of example 3. Thus this figure from example 3 would not be considered as reliable as the person skilled in the art would not have been able to calculate it with any certainty on the basis of the information given in example 3 (see page 9, lines 26-27).

2.7 The incorporation of this value of 0.5% into claim 1 amounts to taking an unreliable value out of the context in which it is found and treating this value as if it could be derived directly from the information given in example 3. It is thus an amendment that contains subject-matter which extends beyond the content of the application as filed.

2.8 For this reason, the amendment specified under point 2.1 prejudices the maintenance of the patent under Article 100 (c) EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Schalow P. Ranguis