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**Datasheet for the decision  
of 30 March 2006**

**Case Number:** T 0742/01 - 3.3.07

**Application Number:** 94110609.8

**Publication Number:** 0633345

**IPC:** D06P 1/00

**Language of the proceedings:** EN

**Title of invention:**

Ink-jet textile printing process using disperse dyes and  
printed textiles obtainable thereby

**Patentee:**

CANON KABUSHIKI KAISHA

**Opponent:**

Kimberly-Clark Worldwide, Inc.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 56, 108

**Keyword:**

"Appeal - admissible (yes)"  
"Inventive step - obvious (yes)"

**Decisions cited:**

-

**Catchword:**

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Case Number: T 0742/01 - 3.3.07

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.07  
of 30 March 2006

**Appellants:** CANON KABUSHIKI KAISHA  
(Patent Proprietors) 30-2, 3-chome, Shimomaruko  
Ohta-ku  
Tokyo (JP)

**Representative:** TBK-Patent  
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**Respondents:** Kimberly-Clark Worldwide, Inc.  
(Opponents) 401 North Lake Street  
Neenah, WI 54956 (US)

**Representative:** Diehl & Partner  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 2 May 2001  
revoking European patent No. 0633345 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** S. Perryman  
**Members:** G. Santavicca  
B. Struif

## Summary of Facts and Submissions

- I. The appeal is against the decision of the opposition division to revoke European patent 0 633 345.

The patent was granted on European patent application No. 94 110 609.8 filed on 7 July 1994 and claiming a right of priority in Japan of 9 July 1993 (JP 170461/93). Claim 1 as granted for the contracting states AT, BE, DK, ES, GB, GR, IE, LU, NL, PT, SE read as follows:

"1. A printing process in which at least three inks of yellow, red and cyan colors are applied to a cloth according to an ink-jet system to conduct printing, which comprises at least three steps of:

- (a) applying at least two of the inks to the cloth in such a manner that at least a part of the inks overlap each other;
- (b) subjecting the cloth, to which the inks have been applied, to a heat treatment; and
- (c) washing the heat-treated cloth,

wherein the cloth is a cloth comprising fibres dyeable with disperse dyes, each of the inks comprises a coloring matter, a compound for dispersing the coloring matter and an aqueous liquid medium, the yellow ink comprises, as a coloring matter, at least one selected from the group consisting of C.I. Disperse Yellow 5, 42, 54, 64, 79, 83, 93, 99, 119, 122, 126, 160, 198, 204, 211, 224 and 237, the red ink comprises, as the coloring matter, at least one selected from the group consisting of C.I. Disperse Red 54, 72, 73, 86, 88, 91,

92, 93, 111, 126, 127, 134, 135, 143, 145, 152, 153, 154, 159, 164, 167:1, 177, 181, 204, 206, 207, 221, 258, 278, 283, 288, 311, 323, 343, 348 and 356 and C.I. Disperse Violet 33, and the cyan ink comprises, as the coloring matter, at least one selected from the group consisting of C.I. Disperse Blue 60, 87, 143, 176, 185, 198 and 354."

As granted for the above listed Contracting States the patent also contained dependent claims reading *inter alia*:

"2. The printing process of claim 1, wherein said coloring matter of yellow color is selected from the group consisting of C.I. Disperse Yellow 5, 42, 83, 93, 198, 211 and 224.

3. The printing process of claim 1, wherein said coloring matter of red color is selected from the group consisting of C.I. Disperse Red 86, 88, 92, 126, 135, 145, 152, 159, 177, 181, 206, 283 and 348.

4. The printing process of claim 1, wherein said coloring matter of cyan color is selected from the group consisting of C.I. Disperse Blue 60, 87, 143, 185, 198 and 354.

...

7. The printing process of claim 1, wherein the total amount of individual coloring matters applied in the color-mixed portion is in the range from 0.01 to 1 mg/cm<sup>2</sup>."

as well as Claims 15 to 22 directed to a printed cloth obtainable by such a printing process or an article obtained by cutting such printed cloth and sewing, bonding and/or welding the pieces.

The set of Claims 1 to 20 with which the patent was granted for the Contracting States CH, DE, FR, IT and LI was essentially similar to that for the other Contracting States but more restricted in the C.I. Disperse Dyes that could be used , and in the fact that claim 1 for these states was limited by the feature that the total amount of individual coloring matters applied in the color-mixed portion was required to be in the range from 0.01 to 1mg/cm<sup>2</sup>.

II. The patent was opposed on the grounds that it did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC) and that the claimed subject-matter was not patentable because it lacked novelty and inventive step (Article 100(a) EPC) having regard to documents:

- D1 : EP-A-0 605 730;
- D2 : GB-A-1 527 396;
- D3 : JP-A-61 118 477;
- D4 : US-A-4 702 742;
- D5 : EP-A-0 212 655;
- D6 : US-A-4 725 849.

III. In its decision posted on 2 May 2001, which was based on the claims as granted, the Opposition Division revoked the patent. According to the reasons of that decision:

- (a) No convincing evidence had been brought forward that the invention underlying the patent in suit could not be carried out by a person skilled in the art using common general knowledge. As regards the questions of the alleged lack of essential features in the independent claims, they related to Article 84 EPC and were not valid grounds for opposition.
- (b) As to novelty, D1 was a document pursuant to Article 54(3)(4) EPC for the contracting states CH, DE, FR, IT and LI. Claim 1 in suit required the application of each of the three inks as defined, whereas D1 disclosed only two colours. The objections raised were thus rejected.
- (c) As regards inventive step, D3 or even D2 described the closest prior art. Having regard to that art, in particular D3, out of the 97 red, yellow and blue dyes mentioned in D3, 35 were applicable to the present subject-matter, whereas 26 dyes listed in the patent in suit were not disclosed in D3. Furthermore, the use of a Cyan-Magenta-Yellow (CMY) colour system for producing multi-colour prints, the use of disperse dyes for ink jet colouring of polyester cloths as well as the use of thermal treatment were all known in the art. Thus, the claimed subject-matter was to be treated as a "selection invention", for which the question of inventive step would rest with an evaluation of whether the selection made was purposive or arbitrary. Since the effects addressed in the patent and the data presented were considered to relate to inherent properties of each dye per se,

and such properties were readily available to the skilled person by routine measurement or limited trial and error, it would be an obvious choice to select dyes (which each independently) were relatively insensitive with regard to fluctuations in the processing conditions and which resulted in a high colour depth even at relatively low concentrations. No unexpected effect was seen to exist, such as that argued for by the patent proprietor in relation to K/S values. The patent was thus revoked for lack of inventive step.

IV. The proprietors (appellants) lodged an appeal against that decision and paid the fee for appeal. The statement setting out the grounds of appeal was received on 12 September 2001.

In a letter dated 25 July 2002, the appellants enclosed:

- (a) An amended Claim 1 for the contracting states CH, DE, FR, IT and LI as well as an amended Claim 1 for the contracting states AT, BE, DK, ES, GB, GR, IE, LU, NL, PT and SE;
- (b) additional experiment results, including Tables 1 to 10;
- (c) a remarks sheet;
- (d) a reflectance graph;
- (e) a copy of an article on <http://www.kurabo.co.jp/division/el/story/4-1.html>;
- (f) an English translation of that page of the website;
- (g) an excerpt translation of D3 (page 2, upper right column, last line to lower right column, line 6).

Then, in reaction to a communication of the Board in preparation for the oral proceedings, the appellants

submitted two sets of amended Claims 1 to 16, in two different versions for the respective contracting states as indicated, as the sole request (letter dated 28 February 2006).

V. In response to the statement setting out the grounds of the appeal (letter dated 18 January 2002), the opponents (respondents) contested the admissibility of the appeal.

VI. In a communication dated 10 November 2005, in preparation of the oral proceedings scheduled for 29 March 2006, the Board indicated the issues that needed decision.

Oral proceedings were held on 29 March 2006. The appellants submitted amended claims as the new Main Request and the new Auxiliary Request, respectively. After discussion of the matter with the parties, the debate was closed and, after deliberation by the Board, the decision was announced publicly on 30 March 2006.

In the Main Request and the auxiliary request, Claim 1 for the contracting states AT, BE, DK, ES, GB, GR, IE, LU, NL, PT and SE was identical, but had been restricted compared to Claim 1 as granted for these states by limiting the coloring matter to be used as follows:

"...at least one selected from the group consisting of C.I. Disperse Yellow 5, 42, 83, 93, 99, 198, 211 and 224, ... at least one selected from the group consisting of C.I. Disperse Red 86, 88, 92, 126, 135, 145, 152, 159, 177, 181, 206, 283 and 348, and ... at



least one selected from the group consisting of C.I. Disperse Blue 60, 87, 143, 185, 198 and 354."

The Main Request also contained a claim 12 directed to "A printed cloth, obtainable by the printing process as defined in claim 1 ..", claims 13 and 14 dependent on claim 12, and a claim 16 directed to "An article obtained by cutting the printed cloth of any one of claims 12 to 15, and sewing, bonding and/or welding the pieces."

These claims 12 to 16 were omitted in the Auxiliary Request.

VII. The appellants essentially argued as follows insofar as relevant to the present decision:

- (a) The appeal was admissible since the statement of grounds of appeal addressed the single ground of revocation, namely lack of inventive step, and the wrong conclusions in the impugned decision. In particular, it had been explained how the experiments to support an inventive step were conducted and how the results were achieved, and that they were unexpected.
- (b) The amendments to the claims restricted these compared to the claims as granted, had a basis in the originally filed application and were occasioned by a ground of opposition, namely lack of an inventive step.
- (c) As regards inventive step, any of D3, D4 or D5 could be considered as representing the closest

prior art. Since no complete translation of D3 was available, D5 was the best starting point. The problem underlying the patent in suit was to provide improved colour depth and colour reproduction range as well as colouring stability in ink-jet printing on a cloth where dyes overlapped.

Colouring stability not only encompassed colour fastness but also meant that the perception of the colour should not change during the thermal treatment to which the mixed colour portion was submitted. It had been shown that the properties of overlapping dyes could be measured by their K/S values, which gave reliable results when determining colour density and colour stability of colour mixed portions since small reflection variation gave significant differences of the K/S values, and that the skilled person knew and commonly applied such measurements. Furthermore, since the data presented in Table 6 of the additional experiments showed that all the samples gave superior results in colouring stability and colour depth over the comparative dyes, it had been shown that a purposive selection had been made, which fulfilled the criteria for a patentable selection invention.

Even if the problem were stated as being to provide an alternative printing process which was at least as good as the known ones, there would be no indications in D3, D4 and D5 to use the combinations of dyes defined in Claim 1. Although many single dyes were known to be stable,

combinations of them did not necessarily provide good results. The possible combinations of dyes defined in Claim 1 were not known and gave good results.

Finally, the excerpt translation of D3, which was considered as a document allegedly disclosing multicolour printing with overlapping dots of ink, showed that the inventive selection was by no means suggested therein.

VIII. The arguments of the respondents can be summarised as follows:

- (a) As to admissibility of the appeal, the appellants' arguments essentially addressed the preparation of the samples. Regarding the K/S values, the appellants had neither explained why they considered that the reasons of the contested decision were incorrect, nor had they provided any evidence to support the allegation that the results in the examples of the patent in suit demonstrated an unexpected effect. The statement setting out the grounds of appeal did not state the legal and factual reasons why the impugned decision should be set aside. Therefore, the appeal was not admissible.
  
- (b) No objections were raised against the formal admissibility of the amended claims submitted during the oral proceedings before the Board; nor were the grounds of insufficiency or lack of novelty still relied on.

(c) As regards lack of an inventive step, ink-jet printing on textiles was known, for instance from any one of D3, D4, D5 and D6. The superimposing of colours was disclosed in D2. The fixing step and the washing steps were known from D4, D5 and D6. The inks of D3, D4, D5, D6 contained an aqueous medium, a dispersing agent and a colour. The formation of mixed portions of colours was not explicitly mentioned in these documents. Nevertheless it was generally known that multicolour printing formed such portions. The only distinguishing feature was seen in the specific combinations of dyes as defined in the claims, which however merely provided expected effects.

The K/S values of the mixing portion depended on the contributions of the single dyes, in particular essentially on the predominant dye. Further, Claim 1 was not restricted to any of the specific conditions exemplified such as the substrate, the relative proportion of the dyes, the specific thermal treatments, etc., which also played a role. Consequently, the claimed process and the relevant product were obvious.

IX. The appellants (proprietors) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claims of the Main Request or of the Auxiliary Request, both submitted at the oral proceedings on 29 March 2006.

X. The respondents (opponents) requested that the appeal be dismissed.

## **Reasons for the Decision**

### 1. *Admissibility of the appeal*

- 1.1 The grounds of appeal and accompanying evidence address the sole ground of revocation, namely lack of inventive step and the reasoning in the decision under appeal that the claimed subject matter was obvious as a "selection invention". The reasoning and evidence can be understood: even if the reasoning were not regarded as persuasive by the respondents, or the board, the appeal itself is still to be considered admissible.

## **Main request**

### 2. *Amendments*

The allowability of the amendments has not been challenged under Article 123 or 84 EPC. As the issue of inventive step is decisive of the appeal no detailed discussion is appropriate.

### 3. *Inventive step*

- 3.1 In considering what should be treated as a suitable starting point in the prior art for assessing inventive step, the introduction and the statement of the problem to be solved appearing in the patent in suit itself are of assistance. These include the following statements:

"[0001] The present invention relates to a process for printing a cloth by an ink-jet system, and to printed cloths obtainable thereby.

[0002] At present, textile printing is principally conducted by screen printing or roller printing. Both methods are however unfit for multi-kind small-quantity production and difficult to quickly cope with the fashion of the day. Therefore, there has recently been a demand for establishment of an electronic printing system making no use of any plate.

[0003] In compliance with this demand, many textile printing processes according to an ink-jet recording have been proposed. Various fields expect much from such textile printing processes.

[0004] As conditions required for ink-jet textile printing, may be mentioned the following:

(1) being able to achieve sufficient color depth upon coloring of ink;

(2) being able to provide a print high in color yield of coloring matter on cloth and to conduct a waste water treatment after completion of washing with ease;

(3) causing little irregular bleeding due to color mixing between inks of different colors on cloth;

(4) being able to achieve color reproduction within a wide range; and

(5) being able to always conduct stable production of prints.

[0005] *In order to satisfy these requirements, it has heretofore been conducted principally to add various additives to ink, to control shot-in ink quantity, or to subject cloth to a pretreatment.*

...

[0009] *As an ink-jet printing method for cloth on which disperse dyes are used to conduct textile printing, for example, a polyester fabric, a method making use of disperse dyes having a sublimation temperature of 180°C or higher is disclosed in Japanese Patent Application Laid-Open No. 61-118477.*

[0010] *However, when textile printing is conducted with inks making use, as coloring matter, of the disperse dyes in which attention is paid to the sublimation temperature only, good coloring is achieved where the individual inks are used singly to dye, but the color depth and color tone after the dyeing, and color reproducibility upon dyeing under the same dyeing conditions greatly vary according to the combination of dyes used where the inks of different colors are mixed on the cloth, so that the above requirements (1), (4) and (5) are often not satisfied at the same time. Therefore, such a method has been yet insufficient to achieve various color expressions.*

...

[0012] *It is therefore an object of the present invention to provide an ink-jet printing process which can satisfy such requirements for the usual ink-jet printing as described above when conducting ink-jet printing on a cloth composed mainly of fibers dyeable with disperse dyes, can provide a*

*print, in particular, high in color depth, bright and markedly wide in color reproduction range, and can stably form images even when the conditions of dyeing treatment by heating are somewhat changed, and printed cloths obtainable thereby as well as articles made from such cloths."*

3.2 The closest prior art for assessing inventive step is normally a prior art document disclosing subject-matter conceived for the same purpose or aiming at the same objective as the claimed invention, here multi-color ink-jet printing of cloth. The above cited paragraphs [0003] and [0004] of the patent in suit refer to prior art proposals for textile printing and the conditions to be met, but no document in the proceedings gives this information.

3.3 Document D3 (which is the Japanese Patent Application Laid-Open JP-A-61-118477 referred to in cited paragraph [0009]) is available to the Board only as an English abstract, and the parties do not agree what the full Japanese text says. D3 originates from the appellants, and they dispute that it refers to multi-color printing, saying that the references to direct dyes of different colours is merely for the purpose of monochrome printing. In the absence of an agreed translation of the full document D3, the Board is not prepared to use it as closest prior art or for any other purpose.

3.4 Document D5 relates to a process for cloth printing by the ink-jet system, suggesting use of a particular ink-receiving material and numerous suitable dyes, of different colors, including lists of identified and particularly preferred disperse dyes of different



colors, of which it is said they can be favorably used when cloth to be printed is made mainly of synthetic fibres such as polyester, vinylon, polypropylene, acetate rayon, acrylic or nylon fibres (see column 7 line 28 onwards). D5 nowhere specifically states that the different colors are to be used together on one cloth. While it is a document that the skilled person might well refer to for knowledge of what can be done, it is not a suitable starting point, as it does not have the same concern, namely multi-color printing, as the patent in suit.

3.5 Document D2, published already in 1978, relates to transfer print carriers and their manufacture, using multi-color ink jet printing, which is indicated as avoiding the need of a gravure roller or plate or stencil with consequent savings. An example uses a triplet of dyes, blue, red and yellow. It is also stated that the method permits the printing of webs made of synthetic material (see page 1, lines 45 to 46), but it is not clear whether this is intended to include cloth made of synthetic fibres such as polyester or not. The description is most concerned with details of the ink-jet printing apparatus and how the inks are made up, and contains no discussion of any problems concerning choosing compatible colored dyestuffs. Thus while D2 is consistent with what is said in paragraph [0003] of the patent in suit that many textile printing processes had been proposed, D2 is not itself a suitable starting point, as its focus is on matters other than the choice of suitable dyestuffs.

3.6 In the circumstances, the only appropriate course is to start from the acknowledged existence of prior

proposals of multi-color ink-jet printing of textiles, as being the closest prior art, as these were proposals conceived for the same purpose. The problem to be solved can then be stated on the lines of the introduction to the patent in suit, as being to implement a process of printing a cloth composed mainly of fibers dyable by disperse dyes by a multi-color ink-jet system having regard to achieving sufficient color depth upon coloring of ink, providing a print high in color yield of coloring matter on cloth and the ability to conduct a waste water treatment after completion of washing with ease, causing little irregular bleeding due to color mixing between inks of different colors on cloth, achieving color reproduction within a wide range and the ability to conduct stable production of prints.

- 3.7 The above formulation of the problem uses the desiderata stated in the patent in suit, paragraph [0004]. The Board does not accept that these desiderata set any objectively measurable standard. For this the desiderata are too vague and numerous, but the desiderata can be accepted as aims the skilled person would seek to achieve as far as reasonably possible. There is no evidence before the Board that any of one of the claimed combinations of colors is unsuitable, and at least some evidence that for some claimed combinations, a deep color is also produced in areas of overlap. The problem so stated thus can be regarded as solved by the subject matter of Claim 1.

*Assessment of inventive step*

- 3.8 In seeking to solve this problem what would the skilled person derive from the prior art ? Knowledge of ink-jet

printing and a multi-color subtractive CMY (Cyan-Magenta-Yellow) system must be taken as part of the common general knowledge of the skilled person in the art of ink-jet printing, so that he knows that he needs a combination of yellow, red (strictly: magenta) and blue (strictly: cyan) dyes which taken singly or in overlap produce the desired wide range of hues. In particular the pair-wise overlap of the ink colors chosen must in each case produce an acceptable further color for the resulting print to have a wide range of different hues. The skilled person will also be aware from D5 of a range of differently colored disperse dyes which are individually suitable for printing on fibers such a polyester.

- 3.9 The skilled person does not know what combinations of disperse dyes already suggested in D5, and applied in the method suggested therein, would provide attractive results. However, a systematic evaluation of each of the possible triple color combinations of disperse dyes indicated as preferred in D5, using a pattern including both each colour by itself and in pair-wise overlap with the other two colors of the triple, would already by visual inspection give information on which triple combinations are compatible, when using the methods of ink preparation and application and cloth treatment suggested in D5, to produce an adequate range of hues. The ink-jet system suggested for use in D5 (column 10 lines 33 to 39) by reference to Japanese Patent Application Laid-Open No JP-A-54-59936 would have been equally suitable for single color or multi-color printing, as the same system is also suggested for use in the patent in suit. Such systematic evaluation can only be regarded as routine work. There is nothing in

D5 or the other prior art to suggest that such an evaluation would turn up nothing suitable, even for less demanding purposes, such as colorful novelty articles.

3.10 In accordance with the teaching of D5 each of the separate colored inks made from disperse dyes would comprise coloring matter, a compound for dispersing the colouring matter and an aqueous liquid medium. The cloth after application of the ink would be given a heat treatment to fix the inks and the cloth would then be washed to wash-out the ink-receiving material. Use of the ink-receiving material is stated in D5 to have the advantage that it quickly adsorbs the ink and does not cause feathering of the ink (column 3 lines 55-57) so giving a precise pattern, which would obviously also be of advantage for a multi-color print, and is not excluded by Claim 1.

3.11 The list of preferred C. I. Disperse Yellow dyes whose use is suggested in D5 for polyesters and the like includes all eight of the C. I. Disperse Yellow dyes listed in Claim 1. The list of preferred C. I. Disperse Red dyes whose use is suggested in D5 for polyesters and the like includes eleven of the thirteen C. I. Disperse Red dyes listed in Claim 1 (only disperse Red 283 and 348 of claim 1 not being listed in D5). The list of preferred C. I. Disperse Blue dyes whose use is suggested in D5 for polyesters and the like includes five of the six C. I. Disperse Blue dyes listed in claim 1 (only Disperse Blue 354 of Claim 1 not being listed in D5). The majority of the possible triple combinations of yellow, red and blue Disperse dyes claimed in Claim 1, are thus combinations which the

skilled person would evaluate when performing a systematic evaluation by reference to the preferred dyes of D5 for polyesters when seeking to implement a multi-color ink-jet printing system. Following the teaching of D5, the method used for applying these triple combinations would be one meeting all the requirements of Claim 1. Thus, *prima facie* Claim 1 is invalid, as most of the triple combinations claimed therein would be derived in an obvious manner from the prior art.

- 3.12 The lists of preferred Disperse dyes in D5 also contain many dyes not permitted under Claim 1. But the skilled person will expect that some dyes of any one color will be less suitable for a CMY multi-color system for the purpose of meeting the stated desiderata, as being less compatible with other dyes of other colors, so that the evaluation would be expected to result in shorter lists of suitable dyes than in D5. That the appellants have shown that some combinations consisting only of dyes which also appear in the lists of D5 (see comparative examples 1, 2 and 3 in patent in suit) produce for some particular heat treatments (to which Claim 1 is not limited) worse results than the claimed combinations, cannot be considered in any way unexpected. Color combinations which are both claimed and derivable from D5 should be recognizable by the systematic evaluation (which meets all the other process features of Claim 1) as better than other combinations, not claimed but also derivable from D5. Should there be any claimed combinations which are also derivable from D5 but are shown by the systematic evaluation to be poor, there would appear in any case no argument that such poor combinations should be regarded as inventive.

3.13 The appellants have put forward arguments for inventive step based on experiments relating to coloring stability, calculating K/S values (K = absorption coefficient, S = scattering coefficient) by reference to measuring reflectance at maximum absorption. These experiments were however carried out using quite specific heat treatments, namely steaming or thermosol treatment, to which Claim 1 is not limited. Paragraph [0031] of the patent states that "... color reproducibility upon dying under the same dying conditions greatly vary according to the combination of dyes used compared with conventional textile printing. This phenomenon is particularly marked when using a dyeing treatment by a high-temperature (HT) steaming process or a thermosol process". This makes it impossible for the Board to treat the experiments as evidence for any advantage that could be recognized for all processes within the scope of Claim 1, which merely requires a heat treatment in general. Further in respect of the argument for lack of inventive step for claimed processes using combinations of dyes derivable in an obvious manner by a systematic evaluation of the dyes listed in D5, as discussed above, nothing appears to change even if the experiments could be accepted as relevant. If particular combinations which can be arrived at anyway by a systematic evaluation of the preferred dyes listed in D5, have in addition color stability in certain heat treatments, this would appear to be a mere "bonus" effect that cannot make something already obvious inventive.

3.14 The opposition division had treated the invention as being a "selection invention". In the case law of the

Boards of Appeal "selection inventions" are special cases normally confined to the situation where a later invention is defined for a given set of components by new ranges for the weight percentage of each component present, which new ranges fall within broader ranges already suggested for the same set of components. An invention may sometimes be found to exist where the new narrowly defined ranges give rise to some new unexpected property. The board does not consider that the principles on which this case law is based can appropriately be extended to cover the present facts.

3.15 The board concludes that Claim 1 for for the contracting states AT, BE, DK, ES, GB, GR, IE, LU, NL, PT, SE does not meet the requirement of Article 56 EPC.

3.16 Claim 1 in the version for the contracting states CH, DE, FR, IT, LI is identical to Claim 1 in the version for the other contracting states, except for the additional requirement that the total amount of individual coloring matters applied in the color-mixed portion be in the range from 0.01 to 1 mg/cm<sup>2</sup>. In this respect, questioned by the Board, the appellants have acknowledged that those quantities were conventional and would not change the problem to be solved or play any role for the assessment of the presence of an inventive step. Therefore, for the same reasons as given above for the Claim 1 for the other designated contracting states, Claim 1 for the contracting states CH, DE, FR, IT, LI also does not meet the requirements of Article 56 EPC.

3.17 Since the respective Claim 1 of the Main Request for the various corresponding contracting states is not

allowable, the request as a whole must be treated as not meeting the requirements of the EPC.

4. *Auxiliary Request*

4.1 The respective Claims 1 of the Auxiliary Request for the respective contracting states are identical to respective Claims 1 of the Main Request, so the Auxiliary Request fails to meet the requirements of the EPC for the same reasons as applied to the Main Request.

5. The appeal as a whole must thus be dismissed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

C. Eickhoff

S. Perryman