Datasheet for the decision
of 21 January 2009

Case Number: T 0431/07 - 3.3.01
Application Number: 98202865.6
Publication Number: 0937760
IPC: C09D 17/00
Language of the proceedings: EN

Title of invention:
Universal colouring compositions

Patentee:
J Colors S.p.A.

Opponent:
BASF Coatings AG

Headword:
Colouring compositions/J COLORS S.P.A

Relevant legal provisions:
EPC Art. 100b), 83, 56
RPBA Art. 15(3)

Relevant legal provisions (EPC 1973):
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Keyword:
"Main request and auxiliary requests 1 to 5: sufficiency of disclosure (no)"
"Auxiliary requests 6 and 7: inventive step (no)"

Decisions cited:
T 0805/93, T 0014/83

Catchword:
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Decision of the Technical Board of Appeal 3.3.01 of 21 January 2009

Appellant:  J Colors S.p.A.
(Patent Proprietor)
Via Settembrini 39
I-20020 Lainate (Milano) (IT)

Representative:  Siniscalco, Fabio
Jacobacci & Partners S.p.A.
Via Senato, 8
I-20121 Milano (IT)

Respondent:  BASF Coatings AG
(Opponent)
CT/R-B311
Glasuritstrasse 1
D-48165 Münster (DE)

Representative:  Leifert & Steffan
Patentanwälte
Postfach 10 40 09
D-40031 Düsseldorf (DE)

Decision under appeal:  Decision of the Opposition Division of the European Patent Office posted 5 January 2007 revoking European patent No. 0937760 pursuant to Article 102(1) EPC.

Composition of the Board:
Chairman:  P. Ranguis
Members:  J.-B. Ousset
R. Menapace
Summary of Facts and Submissions

I. This appeal lies from the decision of the opposition division to revoke the European patent EP-B-0 937 760 on the basis of the main request (patent as granted) and the auxiliary requests 1 and 2 filed during oral proceedings.

II. Claim 1 as granted reads as follows:

"1. Universal colouring compositions characterized in that they comprise 5-70% by weight of pigments, 1-50% by weight of Disperbyk®-183 and 20-80% by weight of solvents, and in which the pigments Disperbyk-183 weight ratio ranges from 0.1:1 to 15:1, said pigments are of inorganic nature chosen from the group comprising classes of coloured pigments having the international Colour Index classifications P.B.11, P.R.101, P.W.6 and P.Y.42, and of organic nature chosen from the group comprising classes of coloured pigments having the international Colour Index classifications: P.B.7, P.B.15:2, P.B.15:4, P.G.7, P.R.19, P.R.122, P.R.168/112, P.V.23, P.Y.3, P.Y.74, P.Y.74/83 and P.Y.83."

Claim 5 of the main request reads as follows:

"5. Universal colouring compositions according to any one of the preceding claims, characterized in that they have a viscosity of 2.0-10.0 poises at 20°C."

III. Opposition has been filed for insufficiency of disclosure (Article 100 b) EPC) and lack of inventive
step. The following documents have inter alia been cited during the opposition proceedings:

(3) Merkblatt Disperbyk®-183 Nr. 106 der Byk-Chemie GmbH, April 1996
(6) Fiche technique Disperbyk®-180,182,183,184,185,190 (Byk-Chemie), October 1996
(8) Data sheet Disperbyk®-182, Disperbyk®-184 and Disperbyk®-190 (Byk-Chemie), January 1995

In its decision, the opposition division held that the subject-matter of all the requests was novel. However, none of the requests fulfilled the requirements of Article 56 EPC. The opposition division put forward that document (3) was to be considered as being available to the public at the priority date of the patent in suit, since it was a document printed one year before this priority date and it related to a commercial product. The opposition division further observed that the argument put forward by the patentee, that is to say, that the claimed compositions showed less rub out properties, was neither demonstrated nor mentioned in the description as originally filed and could not be deduced from the general properties of colouring compositions. Moreover, the opposition division has added that the auxiliary requests contravened Article 83 EPC, since the way the viscosity of a composition was measured, which was not mentioned in the description, had an influence on the value obtained.

IV. Oral proceedings took place on 21 January 2009 before the board.
V. In his statement of the grounds of appeal, the appellant (patentee) requested the maintenance of the patent in the granted version of the claims and filed seven new auxiliary requests in replacement of the two auxiliary requests submitted before the opposition division. Claim 1 of each of the auxiliary requests 1 to 5 relates to universal colouring compositions. The feature of claim 5 as granted, namely a viscosity of 2.0-10.0 poises at 20°C is found in claims 1 of the auxiliary requests 1 and 2 and in claim 3 of each of the auxiliary requests 3 to 5.

Claim 1 of the sixth auxiliary request reads as follows:

"1. Universal colouring compositions comprising Disperbyk® -183 as dispersant, the said compositions comprising:
- 25% by weight of pigments P.Y. 74/83, 2% by weight of Disperbyk® -183 and 73% by weight of a mixture of water and propylene glycol in a 1.5:1 weight ratio or
- 10% by weight of pigments P.R. 168/112, 8% by weight of Disperbyk® -183 and 82% by weight of a mixture of water and propylene glycol in a 1:1.7 weight ratio or
- 9% by weight of pigments P.R. 122, 36% by weight of Disperbyk® -183 and 55% by weight of a mixture of water and propylene glycol in a 1:1.7 weight ratio or
- 46% by weight of pigments P.R. 101, P.B. 11 and P.Y. 42, 14% by weight of Disperbyk® -183 and 40% by weight of a mixture of water and propylene glycol in a 1:1.5 weight ratio or
- 10% by weight of pigments P.G. 7, 50% by weight of Disperbyk® -183 and 40% by weight of a mixture of water and propylene glycol in a 1:1.65 weight ratio or
- 6% by weight of pigments P.B. 15:2, 47% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 47% by weight of a mixture of water and propylene glycol in a 1:5.5 weight ratio or
- 8% by weight of pigments P.B. 7, 45% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 47% by weight of a mixture of water and propylene glycol in a 1:2 weight ratio or
- 58% by weight of pigments P.W. 6, 12% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 30% by weight of a mixture of water and propylene glycol in a 1:1.3 weight ratio or
- 55% by weight of pigments P.Y. 42, 9% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 36% by weight of a mixture of water and propylene glycol in a 1:1 weight ratio or
- 23% by weight of pigments P.Y. 74, 31% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 46% by weight of a mixture of water and propylene glycol in a 2.3:1 weight ratio or
- 23% by weight of pigments P.R. 101, P.Y. 42 and P.B. 7, 27% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 50% by weight of a mixture of water and propylene glycol in a 1:1.5 weight ratio or
- 64% by weight of pigments P.W. 6, 5% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 31% by weight of a mixture of water and propylene glycol in a 1:1.3 weight ratio or
- 38% by weight of pigments P.Y. 83, 24% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 38% by weight of a mixture of water and propylene glycol in a 1.5:1 weight ratio or
- 21% by weight of pigments P.R. 112, 23% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 56% by weight of a mixture of water and propylene glycol in a 1:1.7 weight ratio or
- 16% by weight of pigments P.R. 19, 21% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 63% by weight of a mixture of water and propylene glycol in a 1:4 weight ratio or
- 55% by weight of pigments P.R. 101, 14% by weight of Disperbyk\textsuperscript{\textregistered} -183 and 31% by weight of a mixture of water and propylene glycol in a 1:1.1 weight ratio or
- 30% by weight of pigments P.G. 7, 18% by weight of Disperbyk®-183 and 52% by weight of a mixture of water and propylene glycol in a 1:1.65 weight ratio or
- 12% by weight of pigments P.B. 15:4, 34% by weight of Disperbyk®-183 and 54% by weight of a mixture of water and propylene glycol in a 1:5.5 weight ratio or
- 7% by weight of pigments P.V. 23, 26% by weight of Disperbyk®-183 and 67% by weight of a mixture of water and propylene glycol in a 1:2 weight ratio or
- 28% by weight of pigments P.B. 7, 14% by weight of Disperbyk®-183 and 58% by weight of a mixture of water and propylene glycol in a 1:2 weight ratio or
- 53% by weight of pigments P.Y. 42, P.R. 101 and P.B. 7, 17% by weight of Disperbyk®-183 and 30% by weight of a mixture of water and propylene glycol in a 1:1.5 weight ratio."

Claim 1 of the seventh auxiliary request differs from claim 1 of the auxiliary request 6 in that the feature "10% by weight of pigments P.R. 168/112, 8% by weight of Disperbyk®-183 and 82% by weight of a mixture of water and propylene glycol in a 1:1.7 weight ratio" was deleted.

VI. The appellant's arguments as far as they are relevant for the present decision may be summarized as follows:

Although the value of the viscosity can change depending on the method used to measure it, the person skilled in the art, working in the field of colouring pastes, would make the measurement of viscosity under conditions wherein the colouring pastes behave as Newtonian fluids and would thus use a paddle viscometer (so called Stormer Viscometer) to obtain an adequate
measurement of the viscosity. The mention of this method in the description is therefore redundant.

Document (3), used by the opposition division to assess inventive step, was not made available to the public, because the date printed on this document did not reflect its publication date but rather its printing date and this kind of documents is normally used for internal purposes within the company. Therefore, it could not be taken as granted that Disperbyk®-183 has been marketed at the printing date indicated, that is on April 1996. Hence, document (6) should be considered as the closest prior art, since it gave the same kind of information as document (3), but was closer to the priority date of the patent in suit and, moreover, the information contained in document (6) replaced the previous leaflets and the information contained therein.

The advantageous properties in the rub out test were not mentioned in document (6). Although these properties (rub out) were not mentioned in the description of the patent in suit, this test is well-known by the person skilled in the art and thus could be used to show the presence of an unexpected effect. The better performance of Disperbyk®-183 in the rub-out test could not be deduced by the person skilled in the art from document (6).

Auxiliary requests 4 to 7 should be regarded as inventive, for the reason that in all the compositions but three the ratio Disperbyk®-183 vs. pigment fell outside the one suggested in documents (6) and (3). In the absence of any guidance from the state of the art,
the person skilled in the art would arrive at the claimed subject-matter only after a long experimentation and would not find any incentive to try amounts of Disperbyk®-183 and pigments different from those shown in documents (6) and (3). In conclusion, an inventive step should be acknowledged for these requests.

VII. The respondent's arguments as far as they are relevant for the present decision can be summarized as follows:

A range of viscosity was present in the main request and in the auxiliary requests 1 to 5. Since no method to measure the viscosity was mentioned in the description and due to the numerous methods and devices used to measure viscosity, the information available in the description as originally filed was not sufficient for the person skilled in the art to reproduce the claimed subject-matter (see decision T 805/93). In addition, the method which, according to the appellant's assertion in his grounds of appeal, would be used by the person skilled in the art could not lead to the values given in the description, since the use of a Stormer-viscometer led to values expressed either in "Krebs Units" or in "Gramm", as results from document:

(10) Lehrbuch der Lacke und Beschichtungen; Band 10, H.Kittel.

but not in "poises" which contrary to the description of the patent in suit could not be obtained by the method alleged by the appellant.
Furthermore, document (3) was state of the art within the meaning of Article 56 EPC. This document expressly mentions that Disperbyk®-183 reduces the flocculation of the pigments and thus stabilizes the compositions, improves the reticulation of pigments, increases the gloss and the stability of the compositions, and decreases the viscosity, so that it shows all the advantages put forward in the patent in suit for the claimed compositions. The results obtained in the rub-out-test were irrelevant, because this problem was not mentioned in the description as originally filed and the advantageous properties put forward by the appellant were already known from document (3).

VIII. By telefax of 18 December 2008 the appellant informed the board that he would neither appear nor be represented at the oral proceedings. The proceedings were thus continued in the absence of the appellant (Article 15(3) RPBA).

IX. The appellant requested in writing that the decision of the opposition be set aside and a patent be granted on the basis either of the main request or on one of the seven auxiliary requests filed with the statements of grounds of appeal.

The respondent requested that the appeal be dismissed.

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. Main request and auxiliary requests 1 to 5

2.1 Amendments

Neither the respondent nor the board has seen any reason for an objection in respect of the requirements of the Articles 123(2) or (3) and 84 EPC.

2.2 Sufficiency of disclosure

2.2.1 It has first to be established whether or not the patent in suit contains sufficient information for enabling the person skilled in the art to reproduce the claimed compositions, which all have a viscosity between 2 and 10 poises at 20 °C (see points II and V above).

2.2.2 The patent in suit as well as the application as originally filed are entirely silent as to the type of viscometer (e.g. rotational, falling piston..) and the operating conditions (e.g. pressure) used for assessing the viscosity of the claimed compositions.

2.2.3 Although acknowledging that the value of the viscosity obtained is dependent of the method of measurement, the appellant argued that the person skilled in the art in the field of colouring pastes would measure this viscosity in such conditions that the claimed compositions behave as Newtonian fluids and would thus use a "Stormer viscometer".
2.2.4 This allegation is not supported by any facts or evidence. Rather, document (10) submitted by the respondent casts serious doubt on the choice of this specific viscometer by the person skilled in the art, because according to this document, this viscometer provides values of viscosity, which are given either in "Gramm" or in "Krebs-units". These are relative values (see document (10), page 162, end of paragraph e)) which cannot be converted into absolute values. The values given in claim 5 of the main request, in claims 1 of auxiliary requests 1 and 2 and claims 3 of auxiliary requests 3 to 5 are expressed in "poise", which is an absolute value and cannot, therefore, have been obtained with a Stormer viscometer.

2.2.5 The description as originally filed does not contain any information as to what type of viscometer is required to make the measurements and under which conditions the measurements leading to the range of 2.0 to 10.0 poises present in the main request and in the requests 1 to 5 were carried out. This leaves it to the person skilled in the art to determine the type of viscometer and the conditions of measurements. In view of the numerous techniques and devices used in the state of the art to measure viscosity, it amounts to an undue burden for the person skilled in the art if the latter is left without any clear guidance as to how to prepare compositions which meet the required range of viscosity.

2.2.6 According to the established jurisprudence of the Boards of Appeals the requirement of sufficient disclosure pursuant Article 83 EPC and its counterpart
in Article 100 b) EPC means that the whole subject-matter as defined in the claims can be carried out by the person skilled in the art, at the filing date of the application, without undue burden (see e.g. decision T 14/83, OJ EPO 1984, 105).

2.2.7 It follows from the above, that the subject-matter of the main request and the auxiliary requests 1 to 5 has not been disclosed in a manner sufficiently clear and complete within the meaning of Article 100 (b) EPC.

3. Auxiliary requests 6 and 7

3.1 Neither the board sees nor has the respondent seen any reason for objections in respect of Articles 123(2) or (3), 84 and 54 EPC. Although, according to the respondent, these requests give rise to objections under Article 100 (b) EPC in view of the compulsory presence of Disperbyk®-183 in the claimed compositions, it is, in view of the outcome of the decision, not necessary to pursue this point further.

3.2 Inventive step

3.2.1 Under the so-called problem-solution approach, it is necessary, in order to assess inventive step, to identify the closest prior art, to determine in the light thereof the technical problem which the invention addresses and successfully solves, and to examine the obviousness of the claimed solution to this problem in view of the state of the art.

3.2.2 For this purpose, the closest prior art is a prior art document disclosing subject-matter aiming at the same
objectives as the claimed invention and having the most relevant technical features in common, i.e. requiring the minimum of structural modifications (see Case Law of the Boards of Appeal of the EPO, 5th edition 2006, Section I.D.3.1., "Determination of the closest prior art in general").

3.2.3 The patent in suit relates to colouring compositions, which all contain a specific pigment, Disperbyk®-183, in specified amounts and a mixture of water and propylene glycol.

The appellant disputed that document (3) belongs to the state of the art within the meaning of Article 56 EPC. He argued that the date mentioned on the overleaf of document (3) (April 1996) is a printing date and not a publication date and that it could not be excluded that it was for internal use only.

This view, however, cannot stand on the face of the available evidence, in particular the content and the evident purpose of document (3). This document is a standardized leaflet ("data sheet") which existed also for similar products of the same manufacturer, e.g. document (6) in French for Disperbyk®-180, 182, 184, 185, 190 (and 183, in so far document (6) is a translation of document (3)) and document (8) in English for Disperbyk®-182, 184 and 190. All these leaflets provide information about inter alia "Application Fields / Einsatzgebiete / Domaines d'application", "Properties and advantages / Eigenschaften und Vorteile / Propriétés et avantages", "Container Sizes / Gebindegrössen / Emballages", "Recommended amounts / Empfohlene Zusatzmengen /
Addition conseillée". It is clear from there that these leaflets were addressed to the (actual and potential) buyers and users of the products they refer to. They all existed in printed form ("Printed in Germany") and thus in a larger number of copies. The indication "04/96" at the bottom of document (3) is followed by "Dieses Merkblatt ersetzt alle bisherigen Ausgaben" which text corresponds exactly to "Cette fiche technique remplace toutes les éditions précédentes" after "10/96" in document (6) which also covers Disperbyk® -183, and to "This data sheet replaces all previous issues" after "01/95" in document (8). Hence, these dates, "04/96" for April 1996 in the case of document (3), are not printing dates, but indicate the month from which on an updated version replaced the version of the corresponding data sheet which the manufacturer of these products, including Disperbyk® -183 had used as marketing aid before and continued to use after the indicated month. On the strength of this evidence there is no reasonable doubt that document (3) was not for internal use by the manufacturer only, but became, in the context of the marketing of the product it relates to, available to the public within the meaning of Article 54(2) EPC in April 1996, and thus was part of the state of the art on the priority date of the patent in suit (23 February 1998).

Although document (6) is also highly relevant, the board does not consider it to represent the closest prior art, because it is necessary to select one specific dispersant among the others mentioned in document (6) and the type of solvent used in the colouring compositions (see reasons exposed on point 3.2.2 above). Document (3) describes the properties of
Disperbyk® -183 as dispersant additive (e.g. stabilisation of the tone of colours, hinders the flocculation of pigments, increase of the stability upon storage...). It also mentions that Disperbyk® -183 is particularly appropriate when used as pigment concentrates based on glycol or with aqueous paints (see "Einsatzgebiet"). The suggested amounts of Disperbyk® -183 range from 10 to 15 % when added to inorganic pigments and from 15 to 30% when added to organic pigments (see "Empfohlene Zusatzmengen").

Therefore, the board concurs with the respondent that document (3) represent the closest prior art.

3.2.4 In the absence of any comparative data which could show any special technical effect over the closest prior art, the problem underlying the present application is to be seen in the provision of alternative colouring compositions comprising Disperbyk® -183.

3.2.5 As a solution to this problem, the patent in suit proposes several specific compositions containing a specific pigment, a mixture of water and propylene glycol and Disperbyk® -183. Considering the examples of compositions described in the description, the board is satisfied that the problem has been credibly solved.

3.2.6 It must then be decided, whether this solution is obvious in view of the available prior art.

Document (3), which is a leaflet putting forward inter alia the advantages of Disperbyk® -183 mentions this dispersant can be used with aqueous paints and with
pigment concentrates containing glycols (see "Einsatzgebiete").

The appellant pointed out that the ratio of Disperbyk\textsuperscript{®} -183 over the pigment in all the claimed compositions is outside the ratio suggested in document (3) (see point 3.2.4 above). He contended that the person skilled in the art would arrive at the claimed compositions, only after long experimental effort, so that no pointer is present in document (3) and (6), which would render the claimed subject-matter obvious for the person skilled in the art.

However, this argument is not convincing for two reasons. First, even if the ratio (see overleaf, "Empfohlene Zusatzmengen") Disperbyk\textsuperscript{®} -183/pigment in the claimed alternatives is different from the ratios disclosed in document (3) (see point 3.2.4 above), these differences are not associated with a specific technical effect but involve mere routine experiments. Moreover, the ratio suggested in document (3) for the use of Disperbyk\textsuperscript{®} -183 is not limiting the teaching of document (3), in particular in view of its paragraph, in which no limitation of the ratio is mentioned. Furthermore, Disperbyk\textsuperscript{®} -183 can be used in pigment concentrates based on glycol or in aqueous paints (see point 3.2.4 above). In the absence of any technical effect associated with the amounts of water and propylene glycol defined in claim 1 for each pigment composition, it is a matter of routine experiment for the person skilled in the art to select an appropriate amount of solvent for each of the compositions defined in claim 1.
3.2.7 In view thereof, the person skilled in the art would infer from document (3), that Disperbyk® -183 can be used indifferently with paints (e.g. pigment compositions) containing water and/or glycols and would therefore arrive at the claimed compositions without any inventive ingenuity, simply by selecting specific pigments and specific solvents, namely water and propylene glycol, in different ratios.

3.2.8 For these reasons, claim 1 of the sixth and seventh auxiliary request does not fulfil the requirements of Article 56 EPC.

4. In conclusion, none of the appellant's requests meets the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The registrar

The Chairman

M.Schalow

P. Ranguis