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**Datasheet for the decision
of 16 October 2013**

Case Number: T 1834/11 - 3.3.01

Application Number: 05713323.3

Publication Number: 1713868

IPC: C09D5/00, C09D5/03

Language of the proceedings: EN

Title of invention:
NOVEL POWDER COLORING SYSTEM

Patent Proprietor:
Valspar Sourcing, Inc.

Opponent:
BASF Coatings GmbH

Headword:
Core-shell powder particles/VALSPAR

Relevant legal provisions:
EPC Art. 123(2), 83

Keyword:
Exercise of opposition division's discretion: correct
Main request: subject-matter extended - (no); sufficiency of
disclosure - (yes)
Remittal to the department of first instance - (yes)

Decisions cited:
G 0007/93, T 0482/09, T 0608/07, T 0593/09, T 0914/01

Catchword:



**Beschwerdekammern
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Chambres de recours**

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Case Number: T 1834/11 - 3.3.01

D E C I S I O N
of Technical Board of Appeal 3.3.01
of 16 October 2013

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 9 June 2011
revoking European patent No. 1713868 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman: A. Lindner
Members: G. Seufert
L. Bühler

Summary of Facts and Submissions

- I. The patent proprietor lodged an appeal against the decision of the opposition division revoking European patent No. 1 713 868.
- II. The patent was granted on the basis of 13 claims, independent claims 1 and 11 reading as follows:

"1. A method, comprising:
providing at least one base powder, wherein the base powder comprises a thermosetting polymeric binder;
providing at least one stable colorant dispersion;
mixing said base powder(s) and said colorant dispersion(s) to form a colored mixture;
treating the colored mixture to form a free flowing powder, characterised in that the stable colorant dispersion comprises at least one of a pigment and a dye in a liquid carrier, and wherein the median pigment particle size is 0.04 to 1 microns; and
said base powder(s) and said colorant dispersion(s) are mixed at a temperature below 40°C."

"11. A composition, comprising:
a core particle; and
at least a partial shell about the core particle,
wherein the shell comprises one of:
(a) a dye; or
(b) a pigment particle and a dispersing aid,
characterised in that the core particle comprises a thermosetting polymeric binder, and the pigment particle has a median particle size of 0.04 to 1 microns, and wherein the dispersing aid comprises one or more of surfactants, monomers, polymers, and oligomers."

III. The present decision refers to the following documents:

- (2) Kittel, "Lehrbuch der Lacke und Beschichtungen", zweite Auflage, Hirzel Verlag, Stuttgart, 2006, pages 210 to 211
- (12) Horiba, "Measuring organic pigments with laser diffraction particle size analysis", Particle Size Distribution Analyser, Application note, 4 pages
- (17) Brochure concerning the Malvern Mastersizer 2000 particle analyser, 2005, 12 pages
- (18) P. Bowen, Journal of Dispersion Science and Technology, vol. 23, no. 5, pages 631, 654, 655
- (20) Kirk-Othmer, "Encyclopedia of Chemical Technology", 4th edition, vol. 22, John Wiley & Sons, New York, 1997, pages 256-278
- (21) Mat. Res. Soc. Symp. Proc, vol. 740, 2003, pages 113 to 118

IV. Notice of opposition was filed by the respondent requesting revocation of the patent in suit in its entirety on the grounds of lack of novelty and inventive step and insufficiency of disclosure (Articles 100(a) and (b) EPC). During oral proceedings before the opposition division the respondent raised a further ground for opposition under Article 100(c) EPC.

V. The decision of the opposition division was based on the set of claims as granted (see point II above) and auxiliary requests 1 to 6 filed with letter of 3 March 2011.

Auxiliary request 1 differed from the claims as granted in that the feature **"wherein the liquid carrier is selected to prevent or minimize undesirable melting or**

softening of the components of the base powder" had been introduced into claim 1.

Auxiliary request 2 differed from the claims as granted in that the feature **"wherein said liquid carrier comprises water, an aliphatic solvent or a combination thereof"** had been introduced into claim 1. As a consequence, claim 2 had been deleted and the remaining claims had been renumbered.

Auxiliary request 3 differed from auxiliary request 2 in that the further feature **"wherein the stable colorant dispersion in case it is a pigment dispersion, includes a dispersing aid"** had been added to claim 1.

Auxiliary request 4 differed from the claims as granted in that the liquid carrier in claim 1 had been limited to **water**. As a consequence, claims 2 and 3 had been deleted and the remaining claims renumbered.

Auxiliary request 5 is based on auxiliary request 4 and differed from that request in that the further feature **"wherein the stable colorant dispersion in case it is a pigment dispersion, includes a dispersing aid"** had been added to claim 1.

Auxiliary request 6 differed from auxiliary request 5 in that the composition claims 9 to 11 had been deleted.

The opposition division decided to admit the ground for opposition under Article 100(c) EPC, but held that the expression "liquid carrier" had a basis in the application as originally filed. It also held that the claimed subject-matter was not sufficiently disclosed and therefore contravened Article 100(b) EPC, for the

reason that the lack of technical details for the determination of the median pigment particle size did not enable the skilled person to reproduce the invention without undue burden.

VI. In a communication accompanying the summons to oral proceedings, the board introduced document (20) reflecting the common general knowledge of the person skilled in the art concerning particle size measurement.

VII. The arguments provided by the appellant, to the extent that they are relevant for the present decision, can be summarised as follows:

The ground for opposition under Article 100(c) EPC should not be considered during the appeal proceedings, because the opposition division had not correctly exercised its discretion in admitting it.

The fact that the carrier is liquid was clearly derivable from the application as originally filed, for example from the statements on page 7, second complete paragraph, line 22 and last paragraph, page 8, lines 9 to 10 and 16, page 10, line 14, page 12, lines 9 to 10. The reference to solid dispersions on page 7 and 6 of the application as filed concerned commercially available pre-dispersed forms, which still needed to be dissolved before being mixed with the powder particles, otherwise the invention would not work. This was also illustrated in example 17.

The skilled person had no difficulties carrying out the invention, which was not concerned with the preparation of pigment particles, but with making powder coating compositions. The pigment particles to be used were

commercially available products as indicated in the patent. The skilled person in selecting a suitable pigment would rely on the specification from the supplier. No particle measurement was required and no evidence was provided showing that the invention could not be put into practice by using these commercially available pigments. The fact that different measurement methods provided different particle sizes was not relevant in order to carry out the invention, but merely created a problem concerning the scope of the claims. The exact particle size was not essential for the invention, which would also work with particles outside the claimed range. The respondent's objection was thus in fact a clarity objection. In support, the decisions T 482/09 and 593/09 were cited. In addition, the particle size range referred to in the claims was very broad. The accuracy of the measurement therefore had an impact only at the boundary of the claims. With regard to the type of the median particle size, the reference to the Malvern Mastersizer 2000 laser particle size analyser in the patent in suit was a clear indication that it was the volume median particle size which was to be considered.

The opposition division did not decide on the question of novelty and inventive step. The case should therefore be remitted to the first instance, in order not to deprive the appellant of the possibility of presenting its case before two instances.

VIII. The arguments of the respondent, to the extent that they are relevant for the present decision, can be summarised as follows:

The opposition division correctly exercised its discretion to admit the ground for opposition under

Article 100(c) EPC, considering that admissibility and allowability were two different issues which had to be dealt with separately.

The claims as granted did not comply with Article 100(c) EPC. The term "liquid carrier" was an unallowable intermediate generalisation. The carriers on page 7 were not limiting and the reference to solid dispersions in the last paragraph of page 7 indicated that the carrier could also be solid.

The present invention was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art without undue burden, since the patent in suit did not contain any information with respect to the type of median particle size and methods for its determination. As shown in the available documents, several types existed and several method for the measurement of particle sizes were known, which yielded different values. Even for a single method, particle shape, sample preparation, the actual measurement conditions and data analysis were crucial, since they could influence the value considerably. The particle size was essential to the invention and without any information as to type and measurement of the particle size the skilled person was not in a position to select a suitable pigment, notwithstanding the fact that pigments are commercially available products. In support, the decision T 914/01 was cited.

The case should not be remitted to the opposition division. For reasons of procedural economy and because the case was ready for decision, the board should take a final decision.

- IX. The appellant requested that the decision under appeal be set aside and that the case be remitted to the department of first instance for further prosecution on the basis of the main request or of one of auxiliary requests 1 to 6 submitted with letter of 3 March 2011 or, alternatively, that the patent be maintained on the basis of the main request or of one of auxiliary requests 1 to 6 submitted with letter of 3 March 2011. The appellant further requested that the ground for opposition under Article 100(c) EPC be excluded from the legal framework of the proceedings.
- X. The respondent requested that the appeal be dismissed. It further requested that the appellant's request for remittal and for exclusion of the ground for opposition under Article 100(c) EPC from the proceedings be rejected.
- XI. At the end of the oral proceedings, the decision of the board was announced

Reasons for the Decision

1. The appeal is admissible.
2. Procedural matters
 - 2.1 The ground for opposition under Article 100(c) EPC was raised for the first time during the oral proceedings before the opposition division by the respondent. In exercising its discretion under Article 114(2) EPC, the opposition division decided to admit this late-filed ground into the proceedings.

2.2 This decision was challenged by the appellant, who argued that the opposition division had not exercised its discretion correctly. In support, the appellant referred to point 4.2.4 of the reasons for the decision, which states "Therefore, the opposition ground under Arts. 100(c) and 123(2) EPC is not relevant in the present case". According to the appellant, the opposition division had no reason to admit a ground which was filed at such a late stage without justification and which, in addition, it did not consider to be relevant. This ground should, therefore, not be considered in the appeal proceedings.

2.3 The board is not convinced by the appellant's arguments.

The statement to which the appellant referred is part of point 4.2 of the contested decision entitled "Reasoning", which deals with the allowability of the newly raised ground for opposition under Article 100(c) EPC, i.e. with the question whether or not this ground prejudiced the maintenance of the patent in suit. The question of its admission into the proceedings is discussed in point 4.1 of the contested decision entitled "Admissibility". In point 4.1.1 the opposition division summarised the appellant's arguments as to why the new ground was not *prima facie* relevant. Apparently, the opposition division was not convinced by these arguments. It considered this ground to be relevant for the opposition proceedings and, accordingly, decided to admit it into the proceedings (point 4.1.2 of the contested decision). In view of the fact that the term "liquid carrier" cannot be found in the passages cited by the appellant, thus requiring a more detailed examination, the opposition division had good reasons to consider this ground as (*prima facie*)

relevant and to allow it into the proceedings, notwithstanding the fact that, ultimately, it did not follow the respondent's argument and considered Article 100(c) EPC to be complied with.

The board concedes that the wording the opposition division used in its statement in point 4.2.4 is rather unfortunate and misleading. The board is, however, convinced that in view of the separate decision on the admissibility in point 4.1 and taking into account the first part of the statement in point 4.2.4 that the "opposed patent fulfills the requirements of Article 123(2) EPC", the proper understanding of the opposition division's statement is that the opposition division considered that the ground of opposition under Article 100(c) EPC did not prejudice the maintenance of the patent in suit.

- 2.4 The board, therefore, sees no indication that the opposition division has exercised its discretion to admit the late-filed ground for opposition under Article 100(c) EPC into the proceedings in a wrong or unreasonable way and, consequently, sees no reason to overrule the decision of the first instance in this respect (G 7/93 OJ EPO 775, point 2.6 of the reasons).

Main request (claims as granted)

3. Amendments

- 3.1 According to the respondent, the term "liquid carrier" in claim 1 as granted was nowhere to be found in the application as originally filed, which only mentioned the general term "carrier". The liquid carriers referred to on page 7, lines 9 to 17 were merely examples. Furthermore, the last paragraph of the same

page referred to solid dispersions, which means that at least in these cases the carrier can also be solid. The term "liquid carrier" therefore constituted an intermediate generalisation which had no basis in the application as originally filed.

3.2 The board is not convinced by the respondent's arguments.

Support for the use of a carrier in the presently claimed method was uncontested. On page 7, lines 9 to 17 of the application as filed suitable carriers are mentioned, which are **all** liquids (for example water, organic solvents or mixtures thereof, in particular water, aliphatic solvents such as "Mineral spirits", "VM&P Naphtha", hexane, heptane and octane). There is no mention of suitable "solid carriers". Furthermore, in the last paragraph of the same page it is stated that "The dispersion may be a liquid, slurry, gel, paste or solid, **though liquids are generally preferred**" (emphasis added by the board). The respondent's arguments that this cannot support the fact that a liquid carrier is used, since liquidity could be the result of the dispersing aid, is not considered convincing in view of the fact that dispersing aids are not mentioned in this context, and in view of the preceding paragraphs referring to suitable carriers which are all liquids. Furthermore, this last paragraph continues on page 8, lines 3 to 4 with the explanation that solid pre-dispersed pigments (pigment dispersion) can be transformed into a liquid dispersion by mixing with a suitable carrier, which speaks against the respondent's arguments that the dispersing agent provides the liquidity. Furthermore, as pointed out by the appellant, on page 7, line 22 the dispersing agent is soluble in the carrier, which also

supports the fact that the carrier is a liquid. Other indications that the carrier is a liquid are that the carrier is removed (see page 12, lines 9-10), as pointed out by the appellant, which preferably takes place by drying (see page 10, line 22).

The board also concurs with the appellant that the carrier being a solid is not a technically meaningful interpretation in view of the aim of the invention to coat the base powder particles with a colourant.

3.3 For the aforementioned reasons, the board concludes that the ground for opposition pursuant to Article 100(c) EPC does not prejudice the maintenance of the patent on the basis of the main request.

4. Sufficiency of disclosure (Article 100(b) EPC)

4.1 Claim 1 is directed to the preparation of a free flowing powder from a base powder comprising a thermosetting binder and a stable colourant dispersion. The colourant dispersion comprises a pigment with a median particle size of 0.04 to 1 microns or a dye in a liquid carrier and the mixing of the base powder and the colourant dispersion is performed below 40°C (see point II above).

Claim 11 is directed to a composition comprising a core-shell particle with the core particle comprising a thermosetting binder and the shell comprising a dye or a pigment particle and a dispersing aid. The pigment particle has a median particle size of 0.4 to 1 microns and the dispersing aid comprises one or more surfactants, monomers, polymers and oligomers (see point II above).

4.2 With respect to the alleged insufficiency of disclosure, the respondent essentially argued that the median pigment particle size in claims 1 and 11 was not sufficiently defined to enable the skilled person to carry out the invention without undue burden, since the type of median particle size (for example volume, surface area, number) was not specified and no information was available as to which method was used for the determination of the particle size. According to the respondent, no standard method existed and the various methods available to the skilled person yielded different results. Moreover, the respondent argued that even for a single method, like laser diffraction, sample shape, sample preparation and data analysis had an essential influence on value and type of the particle size. In support of its assertions, the respondent relied on a number of documents, including documents (2), (12), (17) (18), (20) or (21). Furthermore, it referred to decision T 914/01.

4.3 The board does not dispute the fact that various types of, and measurement methods for, median particle sizes exist or that depending on the circumstances different results may be obtained using different methods. It can also not be denied that the patent in suit does not contain explicit information as to the type of median particle size or the method for its measurement. However, it is the board's conviction that the respondent's objections in this respect concern the question whether the claimed invention is correctly defined in accordance with Article 84 EPC, i.e. whether the scope of the claims is clear. Since Article 84 EPC is not a ground for opposition, deficiencies under this article are not to be considered in the examination of the present main request, which corresponds to the claims as granted.

4.4 The board accepts that the lack of a clear definition of a parameter (in particular if a newly formulated and therefore unfamiliar parameter is used and no method for its measurement is defined) may well lead to an objection of insufficiency of disclosure. However, the board is convinced that this does not apply in the present case for the following reasons:

4.4.1 The present invention is not concerned with the preparation of pigment particles but relates to the preparation of powder coating compositions (paragraphs [0001] and [0011], claim 1). This is achieved by mixing colourants (dye or pigment dispersions in a liquid carrier) and optionally other ingredients with the base powder. The colourant, once added to the base powder, forms a coating layer (shell) on the surface of the base powder particles (core) (paragraph [0045], claim 11). According to the patent in suit, covering the base powder particle with a colourant comprising shell instead of distributing the colourant throughout the base powder particle has certain advantages (see patent in suit, paragraphs [0002] to [0010] and [0049]).

4.4.2 The patent in suit contains a considerable number of examples illustrating the claimed subject-matter and provides further detailed information on the selection of suitable base powders (paragraphs [0017] to [0022]), suitable carriers (paragraph [0028]) and the mixing and treatment steps for obtaining the free flowing powder (paragraphs [0037] to [0042]). This was not contested by the respondent. Suitable pigments according to the patent in suit are readily available commercial products (paragraph [0025]) with typical particles sizes falling well within the presently claimed range

(paragraph [0026]). This was also not disputed by the respondent. Furthermore, the patent in suit indicates that, if the colourant is a pigment, the number of pigment particles should be much higher than the number of base powder particles and their size much smaller (paragraphs [0044] and [0045]).

4.4.3 The board also notes that there is no indication in the patent in suit that a particular particle size belongs to the core of the invention. What is essential - and here the board concurs with the appellant - is the formation of a colourant layer on the surface of the base powder particles. Information as to how this can be achieved is clearly derivable from the patent in suit (see point 4.4.2 above). Hence, the skilled person has no difficulties in putting the invention into practice. No undue experimentation and no particle size measurement are required. With regard to the particle size, the skilled person relies on the specification provided by the supplier.

4.4.4 The respondent has provided no experimental evidence showing that by using these commercially available products (irrespective of how their size was measured), the skilled person is unable to prepare the base powder particles surrounded by the colourant-comprising shell. Relying on the aforementioned documents, the respondent has merely shown that the measurement method used for the determination of a particle size, including sample shape, sample preparation and data analysis, may have an influence on the actual value of that parameter, i.e. it has shown that an ambiguity exists due to the lack of information concerning the method for particle size measurement, but not that the claimed subject-matter is not workable or that undue burden is

associated with achieving the benefits of the claimed invention.

4.4.5 Notwithstanding the lack of experimental evidence, the board also notes that claim 1 refers to a rather broad range for the median particle size. Thus, even if, as argued by the respondent with reference to document (18), the particle size measured with two different methods can be up to three times higher (or lower), such a particle size would still be mainly within the claimed range, considering the typical particle size of suitable pigments (paragraph [0026] of the patent in suit). The accuracy of measurement techniques takes effect mainly at the edges of the claimed range, which according to established jurisprudence of the boards of appeal is not sufficient to support an objection of insufficiency of disclosure (T 482/09, see point 2.1 of the reasons, T 608/07, point 2.5.2 of the reasons, T 593/09, points 4.1.4 and 4.1.5 of the reasons). Moreover, as indicated in paragraph [0026] of the patent in suit, particles sizes of 0.01 to 4.0 microns are apparently equally suitable in the present invention.

4.4.6 Furthermore, in the present case, the fact that the skilled person has no clear information as to the type of the median particle size does not mean that he cannot carry out the invention. It merely requires that he take into account every technically meaningful interpretation of this feature in the context of the invention.

4.4.7 In the board's opinion, decision T 914/01 cannot support the respondent's objection of insufficiency either, since the cases are not comparable. In the decision T 914/01 the support for a catalyst system was

defined by a number of unusual parameters. At least for one of these parameters no standard measurement method existed. Furthermore, there was no evidence that the support was commercially available and the method for its production was not sufficiently described for the skilled person to obtain the support with the desired properties without carrying out a research programme.

4.5 In view of the above, the board concludes that the patent in suit provides sufficient information for the skilled person to carry out the invention. The ground for opposition according to Article 100(b) EPC does therefore not prejudice the maintenance of the patent on the basis of the main request.

5. Remittal

5.1 In the decision under appeal the opposition division revoked the patent solely on the ground of lack of sufficiency of disclosure. It did not decide on the other grounds of opposition relied on by the respondent, that is lack of novelty and inventive step. It did, however, present comments on novelty with respect to claim 11 in an "obiter dictum", which it emphasised was not part of the decision.

5.2 The board notes that lack of novelty as a ground of opposition was not discussed with the parties during the oral proceedings before, and not decided by, the opposition division. The board is therefore of the opinion that lack of novelty of claim 11 as a ground for opposition had not been the subject of a complete and final examination before the opposition division. The obiter dictum merely represents the preliminary opinion of the opposition division on the subject-matter of claim 11 of the main request. In addition,

the board notes that the division has not yet decided on the objections of lack of novelty and inventive step raised against claim 1 of the main request.

- 5.3 In view of the above, the board was not convinced by the respondent's argument that the case was "ready for decision" and that for reasons of procedural economy the board should come to a final decision in the present case.
- 5.4 In these circumstances, the board considers it appropriate to exercise its discretionary power pursuant to Article 111(1) EPC in the appellant's favour and remit the case to the department for further prosecution.
- 5.5 Having come to the conclusion that the main request complies with the requirements of Article 100(b) and (c) EPC and having decided to remit the case, there is no need for the board to decide on auxiliary requests 1 to 6.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



M. Schalow

A. Lindner

Decision electronically authenticated