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**Datasheet for the decision
of 15 May 2012**

Case Number: T 0287/10 - 3.3.06
Application Number: 03712158.9
Publication Number: 1490549
IPC: D21H 17/69, D21H 19/38,
B41M 5/00
Language of the proceedings: EN

Title of invention:

Composition for surface treatment of paper

Patentee:

Ciba Holding Inc.

Opponent:

OMYA DEVELOPMENT AG

Headword:

Surface treatment of paper/CIBA

Relevant legal provisions:

EPC Art. 123(2), 69

Relevant legal provisions (EPC 1973):

EPC Art. 84, 83

Keyword:

"Added subject-matter - no (all requests)"
"Clarity - not to be considered"
"Sufficiency of disclosure - yes"

Decisions cited:

G 0002/88, T 1414/08

Catchword:

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Case Number: T 0287/10 - 3.3.06

DECISION
of the Technical Board of Appeal 3.3.06
of 15 May 2012

Appellant: Ciba Holding Inc.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 28 December 2009
revoking European patent No. 1490549 pursuant
to Article 101(3)(b) EPC.

Composition of the Board:

Chairman: P.-P. Bracke
Members: G. Dischinger-Höppler
U. Tronser

Summary of Facts and Submissions

I. European patent No. 1 490 549 was granted on the basis of a set of 31 claims including amongst others independent Claims 1, 24 and 25 which read as follows:

"1. Composition for surface treatment of paper, paperboard or the like, characterised in that the composition comprises

- a nanoparticle fraction comprising particles with size ranging from 5 to 500 nm, and
- a carrier fraction comprising
 - plate-like pigment particles, and
 - at least one binder,

the proportion of the plate-like pigment particles in the carrier fraction being between 20 and 80% of the solids content, and that the proportion of the nanoparticle fraction to the carrier fraction is 20/80 - 80/20, calculated as dry matter.

24. Composition for surface treatment of paper, paperboard or the like, comprising

- a nanoparticle fraction comprising particles with size ranging from 5 to 500 nm, and
- a carrier fraction comprising
 - plate-like pigment particles, and
 - at least one binder,

the proportion of the plate-like pigment particles in the carrier fraction being between 20 and 80% of the solids content, the proportion of the nanoparticle fraction to the carrier fraction being 20/80 - 80/20, calculated as dry matter obtainable by the method according to any of the claims 19 to 22.

25. Method for surface treatment of paper, paperboard and the like, characterised in that the paper, paperboard or the like, is treated by applying to the surface of paper, paperboard or the like a composition comprising

- a nanoparticle fraction comprising particles with size ranging from 5 to 500 nm, and
- a carrier fraction comprising
 - plate-like pigment particles, and
 - at least one binder,

the proportion of the plate-like pigment particles in the carrier fraction being between 20 and 80% of the solids content, the proportion of the nanoparticle fraction to the carrier fraction being 20/80 - 80/20, calculated as dry matter."

Independent Claims 19 and 20 relate to a method for manufacturing a composition according to Claim 1 or 2 respectively. Independent Claim 30 relates to the use of a composition according to anyone of Claims 1 to 18 and independent Claim 31 relates to a surface treated paper, paperboard or the like wherein the composition of any of Claims 1 to 18 is used for surface treatment.

Dependent Claims 2 to 18 relate to preferred embodiments of the composition of Claim 1. Dependent Claims 21 to 23 relate to preferred embodiments of the method of Claims 19 or 20 and dependent Claims 26 to 29 relate to preferred embodiments of Claim 25.

II. A notice of opposition had been filed against the granted patent, wherein the Opponent sought revocation of the patent inter alia on the grounds of Article 100(c) EPC for extension of the claimed

subject-matter beyond the content of the application as filed (Article 123(2) EPC) and on the grounds of Article 100(b) EPC for insufficient disclosure of the invention (Article 83 EPC).

III. The decision under appeal was based on amended sets of claims according to a main and two auxiliary requests filed during oral proceedings before the Opposition Division.

The claims of the main request differ from the granted claims

- by replacing the term "comprising particles with" by "consisting of synthetic silica particles with" in Claims 1, 24 and 25,
- by deleting Claim 10 and renumbering Claims 11 to 31 into Claims 10 to 30 with respective amendments of their dependencies,
- by deleting in Claims 16 and 18 respectively (Claims 17 and 19 as granted) the terms "- the nanoparticle fraction comprises synthetic silica particles, and" and "comprising particles with size ranging from 5 to 500 nm".

The claims of the first auxiliary request differ from those of the main request in that the upper limit of the particle size range mentioned in Claims 1, 23 and 24 has been changed from "500 nm" into "100 nm".

The claims of the second auxiliary request differ from those of the first auxiliary request by introducing in Claims 1, 23 and 24 the term "having a size of between 1 - 100 μ m" after "plate-like pigment particles".

IV. In its decision to revoke the patent, the Opposition Division reasoned that due to the absence in the patent of any precise method of measurement for the claimed nanoparticle size, a skilled person would be unable to establish whether a product falls under the scope of the claims and to reliably prepare the claimed product.

The Opponent's objections against the formal admissibility of the Proprietor's requests as being late-filed and under Articles 123(2) and 84 EPC were rejected by the Opposition Division.

V. The decision was appealed by the Proprietor (now Appellant).

Upon requests made by both parties, oral proceedings before the Board were held on 15 May 2012, in the course of which the Opponent (now Respondent) filed a Lab Report by Omya Research and Technology and a brochure by Wacker Silicones on pyrogenic silica.

VI. The Appellant argued in essence that a skilled person was in a position to carry out the invention since there was sufficient guidance in the patent how to determine the particle size and since standardised methods for measuring the particle size were known.

There was no reason to doubt that the measured values which generally have an inherent inaccuracy are reliable values.

The argument of legal uncertainty with respect to the scope of protection concerned lack of clarity rather than insufficiency of disclosure.

VII. The Respondent presented in essence the following arguments:

- The Appellant's requests were late-filed and not admissible.
- The amendments made to the claims were not allowable under Article 123(2) EPC.
- The claims were not allowable due to lack of clarity.
- The invention was not sufficiently disclosed since it was not possible for a skilled person to determine whether nanoparticles fall within or outside the scope of the claimed invention or to rework the invention. This was due to the fact that several methods were known in the art which provided different results as was shown in the documents submitted during oral proceedings (point V above). However, there was no definition in the patent of the measuring method, of the measuring parameters and of what was actually measured, the mean or the largest particle diameter.

Lack of sufficiency was also due to the undefined proportions of the plate-like pigment particles in the carrier fraction and of the nanoparticle fraction to the carrier fraction.

VIII. The Appellant requested that the decision under appeal be set aside and the case be remitted to the Opposition Division for further prosecution on the basis of the

claims according to the main or one of the auxiliary requests 1 or 2, all requests submitted with the grounds of appeal.

The Respondent requests that the appeal be dismissed.

Reasons for the Decision

1. Formal admissibility of the Appellant's requests

The Appellant filed the current set of claims according to a main request and two auxiliary requests together with its statement of Grounds of Appeal. These sets of claims are the same as those on which the decision under appeal is based.

During the oral proceedings before the Board of Appeal, the Respondent eventually agreed that the new claim sets were not belated and, hence, admissible as far as the appeal proceedings are concerned, but maintained that they were not admissible during opposition proceedings.

The Board does not see any relevance of this latter argument for the present proceedings. Even if the decision of the Opposition Division to revoke the patent would have been based on the formal ground of inadmissibility of the requests instead of on the grounds of Article 83 EPC, this would not have terminated the proceedings irrevocably or prohibited the Appellant's appeal.

For sake of completeness the Board wishes to express its full agreement with the Opposition Division's finding insofar as the current claim sets are not deemed to be belated even during opposition proceedings.

2. *Added subject-matter (Article 123(2) EPC)*

2.1 The Respondent objected under Article 123(2) EPC to the amendments made to the claims of the main request for the following reasons:

a) There was no basis in the application as filed for the introduction into Claims 1, 23 and 24 of the term "consisting of synthetic silica particles with size ranging from 5 to 500 nm" after "nanoparticle fraction".

According to the application as filed the term 'nanoparticles' might denote particle sizes in the range of 5 to 500 nm. However, no such definition was given for the nanoparticle fraction which, as a consequence, may comprise particles outside this range. Further, there was no disclosure of an exclusive use of synthetic silica particles, let alone of synthetic silica particles of a particular size.

b) Since original independent Claim 25, which was the basis for current Claim 24, was not dependent on original Claim 10, the only claim referring to synthetic silica particles, the subject-matter of new Claim 24 could not be derived from the claims. According to the Respondent, the application of nanoparticles consisting of synthetic silica and having a size ranging from 5 to 500 nm in a method for surface

treatment of paper could also not be derived from the description as originally filed.

Likewise a new combination of features was created in the dependent composition claims due to the fact that the claims were originally not interdependent.

- 2.2 As to the amendments to Claims 1, 23 and 24 (point a) above), the Board - in agreement with the Appellant - finds support in the description as originally filed for a synonymous meaning of the terms 'nanoparticles' and 'nanoparticle fraction' (page 3, lines 31 to 33 of the application as filed). Therefore, the preferred nanoparticle size range of 5 to 500 nm disclosed on original page 4, lines 17 to 18, also relates to the particles of the nanoparticle fraction.

According to original page 4, lines 22 to 23, it is further preferred that those nanoparticles are synthetic silica particles. Hence the nanoparticles preferably consist of synthetic silica particles.

Further, the specific combination of features in new Claim 24 and in the dependent composition claims (point b) above) can be found in the application as filed on page 4, line 14 to page 6, line 17 where the broadest and preferred embodiments of the invention are disclosed.

- 2.3 Concerning the first auxiliary request, the Respondent objected to the restricted nanoparticle size range of 5 to 100 nm. However, this feature finds support as preferred size range on page 4, lines 19 to 20 of the application as filed.

Further, the amendment made to the claims of the second auxiliary request (the size of the pigment particles) is based on the disclosure on page 5, lines 14 to 15 as originally filed.

2.4 The Board concludes, therefore, that the amendments made to the new claim sets (main and auxiliary requests) do not add subject-matter which extends beyond the content of the application as filed.

3. *Clarity (Article 84 EPC)*

In the Respondent's opinion none of the Appellant's requests were admissible for lack of clarity since no basis was given for the proportion of the plate-like pigment particles in the carrier fraction and for the proportion of the nanoparticle fraction to the carrier fraction.

However, as these features have not been introduced by the amendments made during opposition and appeal proceedings and since lack of clarity is not a ground for opposition (Article 100 EPC), the respective objection by the Respondent cannot be considered at the present procedural stage.

4. *Sufficiency of disclosure (Article 83 EPC)*

4.1 According to Article 100 b) EPC an opposition may be filed on the ground that a European patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. In other words, a European patent

shall fulfil the same requirements as defined in Article 83 EPC for a European patent application.

- 4.2 The gist of the Respondent's objection concerning lack of sufficiency is that the end values of the size range of the synthetic silica nanoparticles of the claimed composition were ambiguous since there exist in the art different methods of measuring the size and different conditions for carrying out those methods which all produce different results of measurement, however no specific method of measurement was disclosed in the patent in suit.

As a result, a skilled person was unable both, to put the invention into effect across the whole scope of the claims and to determine whether he is working within the forbidden area of the claims or not. Hence, the patent in suit did not meet the fundamental requirements under Article 83 EPC or respectively Article 100 b) EPC.

- 4.3 Exactly the same point of law has been considered and answered by the presently composed Board in decision T 1414/08 with respect to another parameter common in the art, namely the tensile strength. The reasoning in this decision is as follows:

"3. The Board observes that sufficiency of disclosure might be questionable if specific values of an unusual parameter are formulated in a patent as essential to the invention but no method of measuring that parameter is either known in the art or disclosed in the patent (Case Law of the Boards of Appeal of the European Patent Office,

6th edition, 2010, chapter II.A.3.d), first paragraph).

4. *In the present case, the parameter in question is tensile strength, hence not unusual. Whilst being true that no specific method of measuring this parameter is disclosed in the patent in suit, there exist in the art several standardised test methods for determining the dry and wet tensile properties of paper and paperboard including tensile strength. There is no doubt that variations in the test conditions, e.g. ... , have an influence on the result of the measurement. However, as it is known from ... that deviations from the specified conditions are possible, in particular ... , a skilled person had no reasons not to use any of those well-known test methods.*

Hence, the problem to be considered here boils down to the fact that, depending on the method of measurement, there exists an uncertainty as to the actual end values of the range for the tensile strength mentioned in the independent claims.

This problem remains the same, however, even if a specific method of measurement was disclosed in the description since the claims would not be restricted to that method.

5. *The Respondent pointed to the second sentence of Article 69(1) EPC by arguing that the description should be used to interpret the claims.*

Article 69(1) EPC relates to the extent of protection conferred by a European patent of patent application. According to the Protocol on the Interpretation of Article 69 EPC which was adopted as an integral part of the EPC to provide a mechanism for harmonisation of the various national approaches to the interpretation and determination of the protection conferred by a patent, this should be done so as not to overestimate either the literal wording of the claims or the general inventive concept disclosed in the description (see also G 2/88, OJ EPO 1990, 93, reasons No. 2.1, 3.3 and 4.).

6. *However, this does not mean, that the scope of protection conferred by a claim is limited by the description.*

In decision G 2/88, the Enlarged Board of Appeal was concerned with questions relating to Article 123(3) EPC with respect to a change in category from a claim for a physical entity to a claim for a second non-medical use. The Board took the view that upon proper interpretation within the terms of Article 69 EPC such a use claim would implicitly contain a functional feature as a technical feature (reasons No. 9).

It was held that the use claim which was in effect a claim to a physical entity only when it is used in the course of the particular physical activity (of the use) conferred less protection than a claim to a physical entity per se which conferred absolute protection upon such physical entity, no

matter where it exists and what is its context (reasons No. 5).

7. *Transferred to the present case, where a tissue product is claimed and different methods of measuring the tensile strength of that product are known in the art which give different results, this means that the end values of the range for the tensile strength remain ambiguous, irrespective of whether a specific test method is disclosed in the patent or not.*

In other words, if - for the purpose of sufficiency of disclosure - it was a requirement that a person skilled in the art must know the scope of the claims, the disclosure of the claimed subject-matter would be insufficient except where a complete method was included in the claim.

8. *The Board notes that the scope of protection as defined in Article 69 EPC may have some relevance for the purposes of Articles 84 EPC and 123(3) EPC which both mention the protection sought for or conferred by a patent. In contrast, Article 83 EPC concerning sufficiency of disclosure is completely silent about that issue.*

For these reasons, the Board takes the view that under the present circumstances the question of whether a skilled person can know what is covered by the claims is a question of definition of the claimed subject-matter, hence Article 84 EPC, rather than of sufficiency of disclosure (Article 83 EPC).

9. *The Board further observes that the question of whether a skilled person is able to carry out the invention within the full scope of the claims is based on an assumption that their scope might extend to undisclosed variants. However, such doubts have to be substantiated by verifiable facts (see also e.g. T 1886/06, reasons no. 1.4.2).*

No evidence in this respect has been presented by the Respondent."

4.4 The reasoning and the conclusion drawn in decision T 1414/08 is in the Board's opinion directly applicable to the present case, where the undefined parameter is the particle size. Neither the documents which were filed by the Respondent during the oral proceedings to show that different results are obtained under different measuring conditions nor the argument that it was not disclosed what size was measured, the mean or the largest diameter of the particles, is suitable to change the logic of this decision.

5. Hence, the ambiguity of the end values of the size range of the nanoparticles comprised in the presently claimed composition, just as in decision T 1414/08,

"is not a matter to be addressed under Article 83 EPC but a question of Article 84 EPC which requires that the claims shall define the matter for which protection is sought and be clear and concise as well as supported by the description. Due to the thus reduced significance of the values, this means that in opposition and appeal proceedings more prior art may be

considered for the assessment of novelty and inventive step, namely that concerning"

compositions comprising a nanoparticle fraction consisting of synthetic silica particles which when measured in a technically reasonable way according to any of the known methods give size values within the claimed range.

The same logic is to be applied with respect to the undefined proportions of plate-like pigment particles in the carrier fraction and of the nanoparticle fraction to the carrier fraction since it is known in the art that such proportions are usually based on the weight or on the volume.

6. Concerning sufficiency of disclosure, the Board further observes that a skilled person is not only in a position to measure the size of the nanoparticles as well as the above proportions but also that the patent contains the information required for producing the composition containing such nanoparticles and proportions (Claims 19 to 23, paragraphs 38 to 43 and examples). The latter has not been contested by the Respondent.

The Board, therefore, concludes that the patent satisfies the requirements of Article 100(b) EPC.

7. Remittal

The patent was revoked on the grounds of Article 100(b) EPC. Whether the patent meets the other requirements of

the EPC, in particular those of Articles 54(1)(2) and 56 EPC, has not yet been established.

Since it is the function of appeal proceedings to give a judicial decision upon the correctness of a separate earlier decision taken by a first-instance department (Case Law of the Boards of Appeal, 6th ed. 2010, VII.E.1), the Board finds it appropriate to make use of its power under Article 111(1) EPC and remits the case to the first instance for further prosecution, thereby allowing the respective request of both parties.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division for further prosecution.

The Registrar:

The Chairman:

D. Magliano

P.-P. Bracke