Datasheet for the decision
of 6 May 2019

Case Number: T 0368/16 - 3.3.06
Application Number: 09799058.4
Publication Number: 2373746
IPC: C09C1/02, C09C3/04, D21H17/00
Language of the proceedings: EN

Title of invention:
Process for manufacturing calcium carbonate materials having a particle surface with improved adsorption properties

Patent Proprietor:
Omya International AG

Opponent:
Schaefer Kalk GmbH & Co. KG

Headword:
Calcium carbonate with improved adsorption properties / OMYA

Relevant legal provisions:
EPC Art. 54, 83, 111(1), 123(2)
RPBA Art. 12(4)
Keyword:
Admissibility of the new main request not admitted by the opposition division: (yes) - Power of discretion not reasonably or correctly applied
Added matter (no)
Sufficiency of disclosure (yes)
Novelty (yes)
Remittal (yes)

Decisions cited:

Catchword:
DEcision of Technical Board of Appeal 3.3.06
of 6 May 2019

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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted on 16 December 2015 revoking European patent No. 2373746 pursuant to Article 101(3)(b) EPC.
Composition of the Board:

Chairman: J.-M. Schwaller
Members: L. Li Voti
          J. Hoppe
Summary of Facts and Submissions

I. The present appeal from the patent proprietor (hereinafter the appellant) is against the decision of the opposition division to revoke European patent no. 2 373 746 because the subject-matter then claimed lacked novelty in particular over the disclosure in document D4 (US 2006/0162884 A1).

II. With its statement setting out the grounds of appeal, the appellant filed seven sets of claims as main and first to sixth auxiliary requests.

III. The opponent (hereinafter the respondent) contested the admissibility of the auxiliary requests and raised objections under Articles 123(2), 83, 54 and 56 EPC against all the requests on file.

IV. In response to the board's provisional opinion, the appellant filed two further sets of amended claims as seventh and eighth auxiliary requests.

V. During the oral proceedings, the appellant withdrew its main request and first to third auxiliary requests and made its fourth auxiliary request to its new main request. This request was then discussed with respect to Articles 123(2), 83 and 54 EPC, the latter in the light of each of documents D4 and D2 (US 3 006 779).

At the closure of the debate, the final requests of the parties were the following:

The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the new main request (formerly fourth auxiliary request filed with the grounds of appeal of
26 April 2016) and that the case be remitted to the opposition division for further prosecution.

The respondent requested that the appeal be dismissed.

VI. Claim 1 according to the new main request reads as follows:

"1. Process for manufacturing calcium carbonate materials having a particle surface with improved adsorption properties of dispersant comprising the steps of:
   a. providing at least one calcium carbonate comprising material in the form of an aqueous suspension or in dry form,
   b. providing at least one lithium ion containing compound selected from the group consisting of lithium oxide or inorganic and/or organic monomeric lithium salts selected from the group comprising mono- and/or polyvalent acid salts such as lithium carbonate, lithium sulphates, lithium citrate, lithium hydrogen carbonate, lithium acetate, lithium chloride, lithium phosphates, in dry form or in aqueous solution, and mixtures thereof,
   c. combining the at least one lithium ion containing compound of step b) with the at least one calcium carbonate material of step a),
   d. grinding the at least one calcium carbonate material (step d),
characterized in that the at least one lithium ion-containing compound is present in an amount of from 0.0035 wt% to 0.8 wt% relative to the total dry calcium carbonate, and that the at least one calcium carbonate material is provided in the form of synthetic calcium carbonate (PCC) obtained from at least one calcium ion source and
at least one carbonate, hydrogen carbonate and/or CO₂ source, or in the form of a natural calcium carbonate (GCC),
and that the solids concentration of material in the form of an aqueous suspension to be ground in grinding step d) is from 10 to 82 % (by dry weight of calcium carbonate material)."

Reasons for the Decision

1. Admittance of the new main request

1.1 This request corresponds to request IVa filed during the oral proceedings before the opposition division, which decided not to admit it because it was late-filed and because the proprietor already had a fair number of opportunities to present further requests.

1.2 It is established jurisprudence (Case Law of the Boards of Appeal of the EPO, 8th edition 2016, IV.E.4.3.2a) that a board, in deciding about the admittance of a request under Article 12(4) RPBA which was not admitted by the department of first instance in the exercise of its discretion under Rule 116(2) EPC, may review and overrule the way in which the department of first instance has exercised its discretion if it comes to the conclusion that said department had not done so in accordance with the proper principles or had done so in an unreasonable way.

1.3 In the present case it can be derived from the minutes that the proprietor was allowed to file various auxiliary requests in the course of the oral proceedings and that request IIIb was admitted, found to comply with the requirements of Articles 83 and
123(2) EPC. Further its process claim 1 was held to be novel but not its product claim 23.

The proprietor then filed a further request after having withdrawn all other pending requests. This further request - labeled IVa and not admitted by the opposition division - in fact consisted of the process claims 1 to 22 of request IIIb.

1.4 For the board, since the process claims of request IVa had already been found to comply with the requirements of Articles 83, 123(2) and 54 EPC, the request per se was apt to overcome all the objections discussed so far during oral proceedings, and even if inventive step had still to be discussed, its filing at this stage cannot be considered as an attempt to prolong unnecessarily the proceedings. To the contrary, since request IVa is based on a convergent limitation with respect to request IIIb and on a combination of features derived from the granted claims, it clearly restricted the issues remaining to be discussed.

1.5 The board thus concludes that the opposition division has exercised its power of discretion under Rule 116(2) EPC in an unreasonable way and by not applying the proper principles, and it should have instead admitted request IVa into the proceedings.

Since the present new main request is identical to such request IVa, the board admitted it into the appeal proceedings under Article 12(4) RPBA.

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

2.1 Since claim 1 concerns a process for manufacturing calcium carbonate materials comprising a sequence of
four steps a), b), c) and d), it is the board's conviction that it is trivial for a skilled person to carry out the claimed process by merely following the sequence of steps recited in claim 1. Moreover, the patent contains numerous examples describing a process including all the steps of claim 1 (see Examples 2, 8 and 9).

2.2 As regards the controversial expression "particle surface with improved adsorption properties of dispersant" in claim 1 at issue, that the respondent objected to under Article 83 EPC, the board concurs with the appellant that by carrying out steps a) to d) a certain kind of surface modification of the calcium carbonate particles may be obtained, however the board does no hold the mere indication of an improvement of the "adsorption properties of dispersant" in claim 1 as having a limiting effect on the scope of protection of the claimed process.

2.3 There is thus no need to further discuss the objections raised by the respondent, since they were all based on the assumption that such a wording had a limiting effect on the claim.

2.4 Therefore the board concludes that the new main request complies with the requirements of Article 83 EPC.

3. **Compliance with the requirements of Article 123(2) EPC**

3.1 The board agrees with the appellant that the wording of claim 1 finds its support in the combination of claims 1, 2, 5, 20 and 25 of the application as filed.

3.2 Therefore, and even if - as argued by the respondent - this combination of features were not supported by the
description and examples, the requirements of Article 123(2) EPC are complied with since the original claims already provide support for the claimed combination.

3.3

For the sake of completeness, the board notes that the respondent raised another objection based on the deletion of lithium hydroxide from the original list of lithium ion containing compounds required in step b).

The board, however, agrees in this respect with the decision under appeal that this deletion does not contravene the requirements of Article 123(2) EPC, since it only restricts the list of lithium compounds to be used in step b), and so it does not amount to a disclaimer. Moreover lithium hydroxide is not a lithium acid salt and thus it does not belong to the list of lithium compounds required by step b). The labeling "comparative" of examples using lithium hydroxide thus does not contradict the wording of claim 1 and does not modify its interpretation either.

4. Novelty (Article 54 EPC) over D2 or D4

4.1

It is undisputed that the process according to claim 1 at issue requires a wet grinding step d) of the at least one calcium carbonate material, since the aqueous suspension subjected to step d) is defined as containing 10 to 82% solids by dry weight of calcium carbonate material.

That in step a) of the process according to claim 1 at issue the calcium carbonate material may be provided in dry form does not contradict step d) - as alleged by the respondent at the oral proceedings - since claim 1 at issue includes the possibility of forming an aqueous suspension of the initial dry calcium carbonate. In
particular, as foreseen in step b) of claim 1 at issue, the calcium carbonate can be mixed before the grinding operation with the lithium ion containing compound provided as aqueous solution.

4.1.1 Claim 8 of document D4, which discloses a process for manufacturing a calcium carbonate material comprising steps a), b) and c) as defined in claim 1 at issue, does not however disclose step d thereof, i.e. a wet grinding step of the calcium carbonate material.

And even if - due to the small median diameter of the calcium carbonate disclosed in claim 6 of D4 - a grinding operation was implied (as accepted by the appellant during oral proceedings), there is no direct and unambiguous disclosure that said grinding is carried out in an aqueous suspension as required by claim 1 at issue.

4.1.2 Claim 21 of D4 (which was also referred to in writing by the respondent) refers back to claim 8, but does not explicitly or implicitly disclose a grinding step of an aqueous suspension either.

4.1.3 Therefore, it is concluded that D4 does not detract from the novelty of claim 1.

4.2 Document D2 (column 4, line 30 to column 5, line 27) discloses a process wherein dry calcium carbonate is added to an aqueous solution of dispersant to provide a slurry containing 70 to 78% by weight of calcium carbonate in a vessel equipped with an agitator. D2 describes that the agitator has circular impeller discs which by rotation establish a hydraulic attrition zone in the body of the slurry imparting intense turbulence, high kinetic energy and a velocity of at least 1500
feet/minute, thus setting up a rapid and efficient vortical circulation of the entire slurry body so that successive portions of the slurry are drawn repeatedly into and through the hydraulic attrition zone.

4.2.1 According to the respondent, the formation of such a hydraulic attrition zone implicitly implied a grinding of the calcium carbonate material in accordance with step d) of claim 1 at issue.

4.2.2 Apart from the fact that the respondent brought this argument for the first time during the oral proceedings without providing any evidence for its allegation, the board is not convinced that this step of D2 can be considered as disclosing a grinding step d) as defined in claim 1 at issue, because - as countered by the appellant - the agitator was used in D2 only for dispersing and suspending the solids in the slurry and not for reducing the particle size of the calcium carbonate, which was already a finely divided calcium carbonate having a small particle size of 0.1 to 0.2 microns (column 4, lines 1-2 of D2).

4.2.3 The board therefore concludes that claim 1 at issue is novel over D2 already for this reason.

4.2.4 If, in favour of the respondent, the step disclosed in D2 might result under certain conditions in some grinding of the calcium carbonate, it is noted that the dispersant used in D2 includes a homogeneous mixture of a sodium phosphate glass, zinc oxide and a salt or hydroxide of potassium or lithium (claim 1), which homogenous mixture can be either:
- a three phase homogeneous fused product (D2, column 4, lines 3 to 13), which for the skilled person
cannot be considered as comprising in its fused form a salt of potassium or lithium, or a fused or mechanically obtained mixture of a sodium metaphosphate-zinc oxide glass with a lithium or potassium carbonate or metaphosphate, i.e. lithium or potassium acid salts (D2, column 4, lines 15 to 20).

Further, according to D2, column 4, lines 20-22, the preferred mixture is disclosed as containing a potassium salt, not a lithium salt.

Therefore, even though the theoretical concentration of lithium or potassium salt in the dispersant used in D2 (claim 1) may overlap with the concentration of the lithium ion-containing component of claim 1 at issue, D2 does not directly and unambiguously disclose the combination of a dispersant as defined in claim 1 at issue in a process involving necessarily some wet grinding of calcium carbonate.

4.2.5 D2 thus does not detract from the novelty of claim 1 at issue either.

4.3 It follows from the above considerations that the subject-matter of claim 1 at issue is novel over the cited prior art.

5. Remittal (Article 111(1) EPC)

Inventive step of the claimed subject-matter having not been discussed before the opposition division and this issue having not been decided upon, the board considers it appropriate to remit the case to the department of first instance for further prosecution.
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:

A. Pinna J.-M. Schwaller

Decision electronically authenticated