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**Datasheet for the decision
of 6 December 2023**

Case Number: T 1813/20 - 3.3.03

Application Number: 06746220.0

Publication Number: 1882701

IPC: C08F8/00, C08J3/24, C08L101/14,
A61L15/60, A61F13/53,
C08F20/06, C08L33/06, C08F6/24

Language of the proceedings: EN

Title of invention:
PROCESS FOR PRODUCTION OF WATER-ABSORBING RESIN PARTICLES,
WATER-ABSORBING RESIN PARTICLES MADE BY THE PROCESS, AND
ABSORBENTS AND ABSORBENT ARTICLES MADE BY USING THE PARTICLES

Patent Proprietor:
SUMITOMO SEIKA CHEMICALS CO., LTD.

Opponent:
Nippon Shokubai Co., Ltd.

Relevant legal provisions:
EPC Art. 54, 56, 100(b), 123(2)
RPBA 2020 Art. 12(6)

Keyword:

Late-filed evidence - admitted (no)

Amendments - added subject-matter (no)

Grounds for opposition - insufficiency of disclosure (no)

Novelty

Inventive step - (yes)

Decisions cited:

G 0007/93, G 0001/03, G 0002/10, T 0971/11



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Case Number: T 1813/20 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 6 December 2023

Appellant: Nippon Shokubai Co., Ltd.
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
14 July 2020 concerning maintenance of the
European Patent No. 1882701 in amended form.**

Composition of the Board:

Chairman M. Barrère
Members: O. Dury
A. Bacchin

Summary of Facts and Submissions

I. The appeal of the opponent is against the interlocutory decision of the opposition division maintaining European patent No. 1 882 701 in amended form on the basis of the claims of the main request filed with letter of 21 August 2019 and a description adapted thereto.

II. The following documents were *inter alia* cited in the decision under appeal:

D1: JP 2003-88552 A
D1a: Automated English translation of D1
D2: GB 2 267 094 A
D3: EP 0 629 411 A1
D4: EP 0 882 502 A1
D5: WO 2005/063825 A1
D6: WO 2005/092956 A1
D7: US 5 672 633 A
D8: US 5 797 893 A
D11: WO 95/26209 A1
D17: Experimental report dated 24 November 2010
D18: JPH11-60630
D18a: Automated English translation of D18
D19: Experimental report dated 14 February 2020

III. As far as relevant to the present case, the following conclusions were reached in the decision under appeal regarding the main request:

- Documents D18, D18a and D19 were not admitted into the proceedings.

- The requirements of sufficiency of disclosure as well as the ones of Article 123(2) EPC were met.
- The subject-matter of claim 1 of the main request was novel over D1a and the subject-matter of claim 4 was novel over the disclosure of documents D4 to D6 and D11.
- The subject-matter of claim 1 involved an inventive step in view of D7 as the document constituting the closest prior art, even taking into account the teaching of any of D2, D3 or D8.
- The subject-matter of claim 4 involved an inventive step when document D11 was taken as the closest prior art.

For these reasons, the patent amended according to the main request was held to meet the requirements of the EPC.

IV. The opponent (appellant) filed an appeal against the above decision and, together with the statement of grounds of appeal, filed the following documents:

- D21: Experimental report and declaration,
dated 20 November 2020
- D22: EP 3 153 528 A1
- D23: WO 2020/122215 A1
- D24: WO 2020/122219 A1

V. The parties were summoned to oral proceedings and a communication pursuant to Article 15(1) RPBA 2020 was then issued by the Board.

VI. With letter of 16 November 2023 the appellant withdrew their request for oral proceedings.

VII. The oral proceedings were then cancelled.

VIII. **The final requests of the parties were as follows:**

(a) The appellant requested that the decision of the opposition division be set aside and that the patent be revoked.

(b) The respondent requested that the appeal be dismissed (main request) or, in the alternative, that the decision under appeal be set aside and the patent be maintained in amended form on the basis of any of auxiliary requests 1 to 6 filed with letter of 21 August 2019 or auxiliary requests 7 to 20 filed with letter of 22 May 2020.

IX. Claims 1 and 4 to 6 of the **main request** read as follows:

"1. A process for producing a water-absorbing resin particle, comprising a step of adding a post-crosslinking agent, which has two or more functional groups having reactivity against a carboxyl group, in at least two stages to a water-absorbing resin particle precursor obtained by polymerizing a water-soluble ethylenic unsaturated monomer to carry out a post-crosslinking reaction, wherein the process comprises:

a first post-crosslinking reaction step of adding a post-crosslinking agent, which has two or more functional groups having reactivity against a carboxyl group, to a water-absorbing resin particle precursor having a water content of not less than 35% by weight

to carry out a post-crosslinking reaction;

a water content adjustment step of reducing a water content of the post-crosslinked water-absorbing resin particle precursor to a water content, which is 15% by weight to less than 35% by weight; and

a second post-crosslinking reaction step of adding a post-crosslinking agent, which has two or more functional groups having reactivity against a carboxyl group, to the post-crosslinked water-absorbing resin particle precursor having a reduced water content to carry out a post-crosslinking reaction; and

wherein a difference in a water content of the water-absorbing resin particle precursor between the first and the second post-crosslinking reaction steps is not less than 5% by weight,

and a water content is calculated by dividing a water amount in a water-containing water-absorbing resin particle precursor by a theoretical resin solid content."

"4. A water-absorbing resin particle obtainable by the process according to any one of claims 1-3, wherein the water-absorbing resin particle has a physiological saline retention capacity of 45-55 g/g, a physiological saline absorbing capacity under the load of 4.14 kPa of not less than 15 ml/g, a gel strength of not less than 500 Pa, and a water-soluble substance of not more than 15 % by mass."

"5. An absorbent material comprising a water-absorbing resin particle as defined in claim 4 and a hydrophilic fiber."

"6. An absorbent article comprising the absorbent material as defined in claim 5 held between a liquid permeable sheet and a liquid impermeable sheet."

Claims 2 and 3 of the main request were dependent on claim 1.

- X. The appellant's arguments, in so far as they are pertinent, may be derived from the reasons for the decision below. They are essentially as follows:
- (a) Documents D18, D18a, D19 and D21 to D24 should be admitted into the proceedings;
 - (b) Claims 1 to 6 of the main request did not meet the requirements of Article 123(2) EPC;
 - (c) The main request did not meet the requirements of sufficiency of disclosure;
 - (d) The subject-matter of claims 4 to 6 of the main request was not novel over the disclosure of D18/D18a together with D19 and/or D21;
 - (e) The subject-matter of claims 1 to 3 of the main request did not involve an inventive step when document D7 was taken as the closest prior art;
 - (f) Since the subject-matter of claims 4 to 6 of the main request was not novel over the disclosure of D18, it also did not involve an inventive step. In addition, the subject-matter of claim 6 of the main request did not involve an inventive step in view of D18 in combination with D3.

XI. The respondent's arguments, in so far as they are pertinent, may be derived from the reasons for the decision below. They are essentially as follows:

- (a) Documents D18, D18a, D19 and D21 to D24 should not be admitted into the proceedings;
- (b) Claims 1 to 6 of the main request met the requirements of Article 123(2) EPC;
- (c) The main request met the requirements of sufficiency of disclosure;
- (d) The subject-matter of claims 4 to 6 of the main request was novel over the disclosure of D18/D18a, even when taking into account D19 and/or D21;
- (e) The subject-matter of claims 1 to 3 of the main request involved an inventive step when document D7 was taken as the closest prior art;
- (f) Should D18 be admitted into the proceedings, the subject-matter of claims 4 to 6 of the main request involved an inventive step when that document was taken as the closest prior art.

Reasons for the Decision

1. Decision in written proceedings

The appellant unambiguously withdrew their request for oral proceedings (section VI above), based on the Board's preliminary opinion that the appeal is not allowable. In its preliminary assessment of the case, which had been communicated to the parties, the Board has fully taken into account the parties' submissions, so that the principle of the right to be heard according to Article 113(1) EPC has been observed (see Case Law of the Boards of Appeal, 10th edition, 2022, in the following "Case Law", III.B.2.7.3). Since the Board considers the case ready for decision, the present decision can be issued in written proceedings in accordance with Article 12(8) RPBA and Article 15(3) RPBA 2020.

2. Considering that all parties and the opposition division read the content of D1 and D18, which are in Japanese, on the basis of their English translations D1a and D18a, respectively, the passages of these documents indicated in the following refer to the corresponding passages of D1a and D18a.

3. Admittance of documents

3.1 The appellant contested the decision of the opposition division not to admit into the proceedings any of D18, D18a and D19. Should that request not be granted, the appellant further requested that these documents be admitted as if they had been filed with the statement of grounds of appeal.

Admittance of D18/D18a and D19 - Request to overturn the decision of the opposition division

3.1.1 According to established case law, an opposition division's discretionary decision may be overruled by the Boards if it is established that the opposition division did not exercise its discretion in accordance with the right principles or in an unreasonable way (Case Law, *supra*, IV.C.4.5.2; G 7/93: section 2.6 of the reasons). Also, a decisive criterion for admitting late filed documents is their *prima facie* relevance, which is ascertained on the face of the facts, i.e. with little investigative effort (Case Law, *supra*, IV.C.4.5.3).

a) D18/D18a and D19 were filed by the then opponent within the time limit for submissions in preparation of the oral proceedings (Rule 116 EPC). Thus, the opposition division had in principle a discretionary power not to admit them. The opposition division's conclusion not to admit D18/D18a and D19 into the proceedings was reached in view of their late filing and lack of relevance, in particular considering that:

- these documents were filed shortly before the oral proceedings;
- D18a and D19 contained a contradiction regarding the size of particles of hydrogel polymer, whereby said contradiction was only clarified by the opponent at the oral proceedings (statement of grounds of appeal: page 4, first full paragraph);
- the nature of the crosslinking agent used in example 3 of D18, which was relied upon by the

opponent for their novelty objection, was unclear and did not allow the skilled person to fairly rework said example (statement of grounds of appeal: paragraph bridging pages 4 and 5).

b) In the Board's view, the concerns of the opposition division identified in the preceding paragraph are sufficient to conclude that the opposition division made an appropriate use of their discretion not to admit D18/D18a and D19 into the proceedings. In particular, it is derivable from the decision under appeal that the opposition division took into account the late filing and the *prima facie* relevance of these documents. Under those circumstances, it is not justified that the opposition division's decision regarding the non-admittance to the proceedings of D18/D18a and D19 be overturned by the Board.

Request to admit D18/D18a and D19 as filed with the statement of grounds of appeal

3.1.2 According to established case law, the fact that the opposition division did not admit a late-filed document and did not exceed the proper limits of its discretion by not admitting it does, in principle, not prevent the Board from admitting the document (T 971/11, sections 1.1 to 1.3 of the reasons; Case Law, *supra*, V.A.3.4.3.a). In particular, a submission which would have been admitted into appeal proceedings if it had been filed for the first time at the outset of those proceedings should not be held inadmissible, for the sole reason that it was already filed before the department of first instance and not admitted (T 971/11, section 1.3 of the reasons).

a) Documents D18/D18a and D19 are used in the statement

of grounds of appeal in support of objections of lack of novelty and lack of inventive step (statement of grounds of appeal: sections V and VI.4 to VI.6).

b) However, the appellant has not shown, nor even argued, that there were any reasons which would justify the filing with the statement of grounds of appeal of a new document (D18) to raise objections of lack of novelty or inventive step against the operative main request. The Board also sees no compelling reasons in that respect, in particular new circumstances, for instance deriving from the opposition division's decision, which would justify the admittance of these documents in the appeal proceedings. In particular, considering that D18 is a document of the appellant/opponent himself (rejoinder: page 4, third paragraph; reasons of the decision under appeal: page 14, last paragraph and page 15, first paragraph; no counterarguments to that preliminary view of the Board indicated in section 4.3.2.b of the communication was submitted by the appellant), it could have been expected that D18 be filed at the outset of the opposition proceedings. In addition, the concerns identified in section 3.1.1.a) above would also be valid and would justify not admitting these documents if they had been filed for the first time together with the statement of grounds of appeal. For these reasons, the Board considers that, in the circumstances of the present case, D18/D18a and D19 should have been filed during the opposition proceedings if the appellant contemplated to rely on these documents.

For these reasons, D18/D18a and D19, when considered as being filed with the statement of grounds of appeal, are not admitted into the proceedings (Article 12(6))

RPBA 2020).

3.2 The appellant further filed documents D21 to D24 with their statement of grounds of appeal, the admittance of which was contested by the respondent.

3.2.1 In that respect, the filing of D21 to D24 and of the submissions based thereon with the statement of grounds of appeal constitute an amendment to the opponent's case (Article 12(2) and (4) RPBA 2020), the admittance of which undergoes the stipulations of Article 12(4) to (6) RPBA 2020.

3.2.2 Regarding D21, that document is a modified version of D18, which was filed in order to eliminate the contradiction between D18a and D19 regarding the particle size of the hydrogel polymer and to show that using propylene glycol alone, glycerin alone or a 1:1 mixture of propylene glycol and glycerin did not have a major impact on the properties of the particles being produced in example 3 of D18.

a) However, the Board shares the view of the opposition division that the nature of the component specified in paragraph 130 of D18a "propylene glycol glycerin" is *per se* unclear and does not allow the skilled person to determine unambiguously which component is meant therewith (decision: middle of page 18). The fact that the skilled person would understand that a mixture of both components was used - let alone a 1:1 mixture - is, in the Board's view, not derivable from D18a itself. Therefore, D21 suffers from the same deficiency as D18a regarding the unclear nature of the component "propylene glycol glycerin" used in example 3 thereof. The Board further shares the concerns of the opposition division that the fact that the appellant showed that

particles prepared with a 1:1 mixture of propylene glycol and glycerin had the same properties as the ones disclosed in D1, is likely to be the consequence that the appellant knew what was done in D18/D18a because they are the owner of D18/D18a (decision: middle of page 18). However, this was not shown to be derivable from the disclosure of D18/D18a, in particular example 3 thereof.

b) For these reasons, the circumstances of the present case do not justify that the Board makes use of its discretion to admit document D21 into the proceedings (Article 12(6) RPBA 2020).

3.2.3 Regarding D22 to D24, it is derivable from the appellant's submissions that these documents were filed in support of the objection of lack of sufficiency of disclosure regarding the preparation of products according to claims 4 to 6 of the main request in view of an alleged ambiguity in the method of determination of the water contents specified in claim 1 of the main request that was already put forward during the opposition proceedings (statement of grounds of appeal: page 14, third paragraph to page 15, third paragraph; see e.g. notice of opposition: page 13, last paragraph to page 14, third paragraph).

a) Under these circumstances, considering that the objection was already put forward during the opposition proceedings, documents D22 to D24 should have been submitted during the opposition proceedings (Article 12 (6) RPBA 2020).

b) In their statement of grounds of appeal, the appellant further put forward that these documents were filed in direct reaction to some new issues raised by

the opposition division for the first time in the decision, whereby the third full paragraph of page 12 of the decision was referred to (statement of grounds of appeal: page 8, second and fifth paragraphs).

It is however not clear to the Board which new issues are held by the appellant to have been raised by the opposition division in that passage of the decision under appeal and how D22 to D24 would be a suitable reaction thereto. It is further pointed out that the appellant did not react to the communication under Article 15(1) RPBA 2020 of the Board expressing the same opinion (point 4.4.3 b) of the communication). For these reasons, the circumstances of the present case do not justify that the Board makes use of its discretion to admit into the proceedings documents D22 to D24 and the submissions based thereon (Article 12(4) and 12(6) RPBA 2020).

For these reasons, documents D22 to D24 are not admitted into the proceedings (Article 12(6) RPBA 2020).

Main request

4. Considering that the respondent requested as main (substantive) request that the appeal be dismissed, the operative main request for the appeal proceedings is the main request allowed by the opposition division.
5. Article 123(2) EPC
- 5.1 The appellant contested the decision of the opposition division that claims 1 and 4 of the main request met the requirements of Article 123(2) EPC, whereby the same objections were held to be valid for each of

claims 2 to 6 of that request (statement of grounds of appeal: section III).

5.2 For the assessment of Article 123(2) EPC, the question to be answered is whether or not the subject-matter of an amended claim extends beyond the content of the application as filed, i.e. whether after the amendments made the skilled person is presented with new technical information (see G 2/10, OJ EPO 2012, 376, point 4.5.1 of the Reasons and Case Law, *supra*, II.E.1.1). To do so, it has to be assessed if a direct and unambiguous basis for the subject-matter being claimed may be found in the application as filed.

5.3 Claim 1

5.3.1 The appellant considers that the application as filed provides no valid basis for any of features (A) to (E) indicated at the bottom of page 8 and at the top of page 9 of their statement of grounds of appeal.

5.3.2 In that regard, the main basis in the application as filed for the process defined in claim 1 of the main request may be found in original claim 2, to which each of features (A) to (E) were added (feature (A), on three occasions).

5.3.3 Regarding feature (A)

a) Feature (A) defines that the post-crosslinking agent which is added in the first and second post-crosslinking reaction step of the process according to claim 1 should be "a post-crosslinking agent which has two or more functional groups having reactivity against a carboxyl group". The appellant argued that the subject-matter of claim 1 added matter because it was

not specified that the two or more functional groups of the post-crosslinking agent were reacted with a carboxyl group *included in the water-absorbing resin particle precursor*.

b) However, the Board agrees with the respondent that the wording of claim 1, which defines that the post-crosslinking agent is added to a water-absorbing resin particle precursor to carry out a post-crosslinking reaction, imposes that the two or more functional groups of the post-crosslinking agent are reacted with a carboxyl group which belongs to the water-absorbing resin particle precursor (rejoinder: section 4.1.1). Considering that such a reading of claim 1 on the basis of its own wording is fully in line with the disclosure of paragraphs 26 and 31 (first sentence) of the application as filed (D0), feature (A) is directly and unambiguously derivable from the application as filed.

c) In addition, in view of the fact that neither claims 1-2 of the application as filed, nor claim 1 of the main request excludes that the post-crosslinking agent may also react with additional components possibly present in the reaction mixture, the appellant's objection of added-matter in that respect is not convincing (statement of grounds of appeal: page 10, first four paragraphs).

5.3.4 Regarding feature (B)

a) Feature (B) defines that the values of water contents indicated in claim 1 are "% by weight". The appellant was of the opinion that the application as filed only discloses "% by mass" and that using "% by weight" leads to added matter.

b) In that respect, the Board shares the respondent's view that, given that weight and mass are proportional units (weight = mass x g), "% by mass" and "% by weight" are equivalent (rejoinder: page 18, first paragraph).

5.3.5 Regarding features (C) and (D)

a) Feature (C) defines that the water content adjustment step should be carried out so as to achieve a water content which is 15% by weight to less than 35% by weight.

Considering that it is already indicated in original claim 2 that the water content in this step should be less than 35 %, the amendment made only imposes that the water content in that step should be of at least 15% by weight. Therefore, it is agreed with the respondent that a valid basis for that amendment may be found at page 16, line 12 of the application as filed.

b) Feature (D) defines that a difference in a water content of the water-absorbing resin particle precursor between the first and the second post-crosslinking reaction steps is not less than 5% by weight. That feature may be found at page 16, lines 17-20 of the application as filed. Further considering that said passage is disclosed in a general manner, it applies to any embodiment of the application as filed, in particular the one according to original claim 2.

c) Further considering that a valid basis for each of features (C) and (D) may be found in two consecutive passages of paragraph 29 of the application as filed, also the combination of these features is held to be directly and unambiguously derivable from the

application as filed. Indeed, features (C) and (D) merely amount to limit the range of water content originally disclosed for the water content adjustment step defined in original claim 2 and further limit the process so being defined in view of a general statement made in the description of the application as filed for that step.

5.3.6 Regarding feature (E)

a) Feature (E) defines that a water content is calculated by dividing a water amount in a water-containing water absorbing resin particle precursor by a theoretical resin solid content. The appellant considered that said amendment added matter because the feature "converting this into a value expressed in percentage" (paragraph 27 of the application as filed; page 15, lines 17-21) with regard to the method of measurement of the water content was not specified.

b) However, the Board concurs with the respondent that, since all the water contents specified in claim 1 are expressed in "% by weight", feature (E) can only be understood as implicitly requiring an additional conversion to obtain % by weight, which is further in line with the indication at page 15, lines 17-21 of the application as filed.

5.4 Claim 4

5.4.1 The appellant considered that "the combination of ranges of the different parameters claimed in said claim, is to be considered a combination of different levels of preference which is not directly and unambiguously disclosed" in the application as filed.

5.4.2 However, the Board shares the view of the respondent and of the opposition division (decision: point 3.2 of the reasons) that the combination of parameters now being defined in claim 4 is originally the object of claim 5 of the application as filed, whereby the sole amendment made is that the range of 40-60 g/g defining the physiological saline retention capacity was amended to "45-55 g/g", for which a basis is given in the form of a preferred embodiment at page 21, line 5 of the application as filed. The other parameters specified in claim 4 of the main request are further in line with the most general disclosure for these features given on page 21, lines 7, 13 and 24 of the application as filed. Under these circumstances, the Board is satisfied that the combination of ranges of the different parameters specified in claim 4 of the main request is directly and unambiguously derivable from the application as filed.

5.5 Claims 2 to 6

The objections pursuant to Article 123(2) EPC raised against claims 2 to 6 of the main request are the same as the ones put forward against claims 1 and 4 (statement of grounds of appeal: page 13, first full paragraph). Therefore, further considering that each of claims 2 to 6 finds a literal basis in claims 3 to 7 of the application as filed they are bound to share the same fate.

5.6 In view of the above, the appellant's arguments put forward in appeal do not justify that the Board overturns the decision of the opposition division regarding Article 123(2) EPC for the main request.

6. Article 100(b) EPC

6.1 In order to meet the requirements of sufficiency of disclosure, an invention has to be disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person, without undue burden, on the basis of the information provided in the patent specification, if needed in combination with the skilled person's common general knowledge. This means in the present case that the skilled person should in particular be able to carry out a process according to operative claim 1, which was contested by the appellant.

6.2 The appellant put forward that the application as filed provided no information how the water contents specified in operative claim 1 may be determined except for resin particles prepared by reverse-phase polymerisation.

However, in the decision under appeal, that objection was already rebutted by the opposition division on the ground that it was not supported by any evidence (decision: page 11, section 4.2, first full paragraph; page 12, fourth full paragraph). The Board sees no reason to be of a different opinion. In addition, in the absence of any counterarguments or evidence submitted by the appellant in their statement of grounds of appeal or in reaction to the Board's communication, there is no reasons for the Board to deviate from the conclusion of the opposition division.

6.3 In view of the discrepancy shown by the calculations made by the appellant - then opponent - in their submission of 19 March 2020, the appellant was further of the opinion that the water contents specified in

operative claim 1 were ambiguous and that, since they were relevant for solving the problem addressed in the patent in suit, said ambiguity amounted to a lack of sufficiency of disclosure.

- 6.3.1 In the decision under appeal, the opposition division was of the opinion that the appellant's submissions of 19 March 2020 at most amounted to an issue of clarity but not a lack of sufficiency of disclosure (decision: page 12, second full paragraph). Considering that the calculations of the appellant are primarily related to the question of the definition of the scope of the claims, the Board also shares the view of the opposition division.
- 6.3.2 Regarding the argument that the water content is considered by the appellant to be relevant for solving at least some of the problems addressed in the patent in suit, the Board considers that since said problems are not indicated in operative claim 1, this consideration is at most an issue of inventive step rather than sufficiency of disclosure (G 1/03, OJ 2004, 413: point 2.5.2, third paragraph, of the reasons; see also Case Law, *supra*, II.C.3.2). It is in particular not clear to the Board how said argument may show that the skilled person would have any difficulties to carry out the process according to claim 1 of the main request. It is also not clear to the Board how said argument may lead to a lack of sufficiency of disclosure for any of product claims 4 to 6 of the main request, whereby claim 4 is defined as a product-by-process claim (with reference to the process of claims 1 to 3 of the main request) and claims 5 and 6 make reference to claim 4. In that respect, it was not shown by the appellant that, because of the alleged ambiguity regarding the definition of the water

content, the skilled person would not be in a position to prepare products as defined in operative claims 4 to 6.

6.4 In their statement of grounds of appeal, the appellant further based their argumentation regarding lack of sufficiency of disclosure on documents D22 to D24. However, since these documents are not admitted into the proceedings, that line of argument is moot.

6.5 In view of the above, there is no reason for the Board to overturn the decision of the opposition division regarding sufficiency of disclosure.

7. Article 54 EPC

7.1 The sole novelty objections pursued in appeal by the appellant are against claims 4 to 6 of the main request in view of documents D18/D18a together with D19 and/or D21. The other objections raised during the opposition proceedings were not maintained in appeal.

7.2 However, since documents D18/D18a, D19 and D21 are not admitted into the proceedings (see section 3 above), the appellant's objections of lack of novelty are moot.

8. Inventive step

8.1 Various objections of lack of inventive step were pursued in appeal against each of claims 1 to 6 of the main request, whereby different documents were considered as constituting the closest prior art. Therefore, these objections are treated separately hereinafter.

Process claims 1 to 3

8.2 Claim 1 - Closest prior art and distinguishing feature(s)

Regarding the independent process claim 1, it was common grounds that, as already held by the opposition division (decision: page 19, point 6.1):

- Document D7 is a document that can reasonably be taken as the closest prior art, whereby claim 12 and column 5, lines 34-37 thereof are particularly relevant and constitute a suitable starting point for the assessment of the inventive step;
- the subject-matter of operative claim 1 differs from the process disclosed in the passages of D7 mentioned above in features 1.4, 1.5 and 1.7 as defined on page 19 of the statement of grounds of appeal (which are not disclosed in D7) as follows:

Feature 1.4: "a water-absorbing resin particle precursor having a water content of not less than 35% by weight to carry out a post-crosslinking reaction";

Feature 1.5: "a water content adjustment step of reducing a water content of the post-crosslinked water-absorbing resin particle precursor to a water content, which is 15% by weight to less than 35% by weight"; and

Feature 1.7: "wherein a difference in a water content of the water-absorbing resin particle precursor between the first and the second post-crosslinking reaction steps is not less than 5% by

weight, and a water content is calculated by dividing a water amount in a water-containing water-absorbing resin particle precursor by a theoretical resin solid content".

The Board has no reason to be of a different opinion.

8.3 Technical problem solved over the closest prior art

8.3.1 Regarding the formulation of the problem to be solved, whereas the respondent agreed with the opposition division that it resided in the provision of a process for producing water-absorbing resin particles exhibiting an improved water-absorbing capacity under loading weight, an improved gel strength and an improved water-soluble matter (decision: page 19, section 6.1, sixth paragraph; rejoinder: page 24, second paragraph to page 25, first paragraph), the appellant was of the opinion that said problem resided in the provision of a mere alternative process for producing a water-absorbing resin having good absorption characteristics (statement of grounds of appeal: page 21, first paragraph).

8.3.2 In that respect, the opposition division considered that the patent proprietor had convincingly shown in D17 that the improvements relied upon to formulate the problem effectively solved over D7 were related to the distinguishing "feature 1.5" as identified at the bottom of page 3 of the decision under appeal, which is identical to feature 1.5 specified in section 8.2 above.

However, in their statement of grounds of appeal, the appellant did not provide any counterarguments to refute the conclusion reached by the opposition

division in that respect, which appears reasonable to the Board. In particular, it is not clear to the Board how the fact that D7 discloses to repeat the surface-crosslinking treatment under modified conditions (statement of grounds of appeal: page 20, last paragraph) may put in doubt the conclusion reached by the opposition division. Also, no further arguments were submitted by the appellant in reaction to the Board's communication, in which said concerns were identified (section 9.3.2).

8.3.3 For these reasons, it is not justified to deviate from the formulation of the problem effectively solved retained by the opposition division, i.e. said problem resides in the provision of a process for producing water-absorbing resin particles exhibiting an improved water-absorbing capacity under loading weight, an improved gel strength and an improved water-soluble matter.

8.4 Obviousness

8.4.1 The question remains to be answered if the skilled person, desiring to solve the problem defined in above section 8.3.3, would, in view of the closest prior art, possibly in combination with other prior art or with common general knowledge, have modified the disclosure of the closest prior art in such a way as to arrive at the claimed subject-matter.

8.4.2 The appellant's objection was based on the combination of D7 with any of D2, D3 or D8 (statement of grounds of appeal: pages 21-24), all of which were already rejected by the opposition division (decision: page 19, last paragraph to page 20, last paragraph of section 6.1).

a) Regarding the combination of D7 with D2 (in particular examples 1 and 2 thereof), the opposition division was of the opinion that D2 did not teach to carry out two crosslinking steps at different water contents as defined in operative claim 1 and even taught away therefrom (paragraph bridging pages 19 and 20 of the decision).

In that regard, the appellant did not explain why they considered that the opposition division's conclusions, which appear reasonable to the Board, were not correct (statement of grounds of appeal: page 21).

As an aside, it may be noted that the respondent considered that D2 disclosed a single post-crosslinking step (rejoinder: page 25, first bullet point). However, the Board shares the opposition division's view that at least example 2 of D2, read in combination with example 1 of D2, effectively discloses a process comprising two crosslinking steps.

b) Regarding the combination of D7 with D3, the opposition division held that it was not shown that D3 unambiguously disclosed feature 1.5 (as identified in section 8.2 above) and, therefore, could not render the subject-matter of claim 1 of the main request obvious (decision: page 20, third paragraph).

Also in that respect, the appellant did not explain why they considered that the opposition division's conclusion, which appears reasonable to the Board, was not correct (statement of grounds of appeal: pages 22-23). In particular, the Board considers that it can be agreed with the respondent that D3 does not disclose unambiguously the lower limit of water content

of 15 % by weight according to feature 1.5 (rejoinder: pages 25-26, second bullet point). Also, the appellant's argument in that respect is at most speculative (statement of grounds of appeal: page 23, fourth paragraph).

c) Regarding the combination of D7 with D8, the opposition division indicated that the opponent acknowledged that feature 1.5 was not disclosed in D8 and, therefore, could not render the subject-matter of claim 1 of the main request obvious (decision: page 20, last paragraph of section 6.1).

Also in that regard, the appellant has provided no counterarguments to show why the decision under appeal would be wrong (see in particular the statement of grounds of appeal: page 24, first full paragraph).

8.4.3 In view of the above, the arguments submitted by the appellant do not justify that the Board overturns the decision of the opposition division regarding inventive step of claim 1 in view of D7 in combination with any of D2, D3 or D8.

8.5 Claims 2 and 3 of the main request being dependent on claim 1 and being related to preferred embodiments thereof, the same conclusion regarding inventive step in view of D7 in combination with any of D2, D3 or D8 has to be reached for each of these claims.

Independent product claims 4 to 6

8.6 In their statement of grounds of appeal (pages 25-26: sections VI.4-VI.6), the appellant put forward that a discussion on inventive step of the subject-matter of claims 4 to 6 of the main request was superfluous

because the subject-matter of these claims was not novel over D18. Also, an additional objection was raised against claim 6 in view of D18 in combination with D3.

However, considering that D18 is not admitted into the proceedings (see section 3 above) and in the absence of any additional substantiated objections by the appellant, in particular in reaction to the Board's communication, these objections are moot.

9. To conclude, it is pointed out that all the Board's arguments mentioned in the present decision were already specified in the Board's communication. In the absence of any counterarguments by the appellant, there was no reason for the Board to deviate from its preliminary views.
10. As none of the objections put forward by the appellant is successful, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Hampe

M. Barrère

Decision electronically authenticated