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Datasheet for the decision of 7 April 2014

Case Number: T 1345/12 - 3.3.09

05713278.9 Application Number:

Publication Number: 1725627

IPC: C09J107/02, C09D107/02,

C08L7/02, B65D33/20, B65D65/14,

C08L33/08

Language of the proceedings: ΕN

Title of invention:

COHESIVE COATING FOR SNACK FOOD PACKAGING

Patent Proprietor:

Bostik, Inc.

Opponent:

Henkel AG & Co. KGaA

Headword:

Relevant legal provisions:

EPC Art. 100(b)

Keyword:

Grounds for opposition - insufficiency of disclosure (no) Remittal to the department of first instance

Decisions cited:

T 0608/07, T 0593/09

Catchword:



Beschwerdekammern **Boards of Appeal** Chambres de recours

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Case Number: T 1345/12 - 3.3.09

DECISION of Technical Board of Appeal 3.3.09 of 7 April 2014

Appellant: Bostik, Inc.

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Representative: Henkel AG & Co. KGaA

Intellectual Property (FJI)

40191 Düsseldorf (DE)

Decision under appeal: Decision of the Opposition Division of the

European Patent Office posted on 10 April 2012 revoking European patent No. 1725627 pursuant to

Article 101(3)(b) EPC.

Composition of the Board:

W. Sieber Chairman: Members: M. O. Müller

K. Garnett

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Summary of Facts and Submissions

- This decision concerns the appeal filed by the proprietor of European patent No. 1 725 627 against the decision of the opposition division to revoke it.
- II. The opponent had requested revocation of the patent in its entirety on the grounds that the claimed subject-matter was neither novel nor inventive (Article 100(a) EPC) and that the patent did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC).
- III. The opposition division's decision, announced orally on 14 March 2012 and issued in writing on 10 April 2012, was based on the patent as granted (main request) and auxiliary requests 1 to 5, whereby claim 1 as granted read as follows:
 - "1. A water based cold seal cohesive coating for bonding one or more substrates together to form a flexible package to contain an article, said cohesive coating comprised of the following components:

25% to 90% by weight of a natural rubber latex emulsion:

10% to 75% by weight of a non-self-crosslinking acrylic emulsion;

0.01 % to 10% by weight water; and

one or more ingredient selected from an anti-foam agent, ammonium hydroxide, a surfactant, an anti-

blocking agent, an inert filler, and a conditioning agent;

so that in combination the components total 100% by weight of said cohesive coating and wherein the cohesive coating forms a peelable and non-resealable closure for a flexible package,

said closure having a cohesive strength of at least 118.11 g/cm after being dried on a substrate for said package at a temperature of above 127°C." (referred to hereinafter as "cohesive strength requirement").

According to the opposition division, the invention underlying the main request was insufficiently disclosed. Firstly, no indication was present in the patent of how the drying step at 127°C or higher should be carried out. A person skilled in the art would therefore not know how to obtain a coating which had the required cohesive strength when dried at a temperature of 127°C or higher. Secondly, the solids content of the rubber latex was not defined in the patent and therefore the skilled person would not know what concentration of natural rubber latex provided a peelable and non-resealable closure for a flexible package. Thirdly, the percentage of water was unclear since water was already present in the natural rubber latex and in the acrylic emulsion, and it was not clear whether this water belonged to the percentage of water to be present according to the claim. Therefore the invention could not be performed without trial and error and this was an undue burden for the person skilled in the art.

Since, in the same way as for claim 1 of the main request, claim 1 of auxiliary requests 1 to 4 contained the cohesive strength requirement, the invention

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underlying any of these auxiliary requests was not sufficiently disclosed either.

Auxiliary request 5 did not meet the requirements of Article 123(3) EPC since the cohesive strength requirement had been deleted and since the claims had thereby been broadened.

- IV. On 8 June 2012, the proprietor (hereinafter: "the appellant") filed an appeal and, on the same day, paid the prescribed fee. In the statement setting out the grounds of appeal filed on 17 August 2012, the appellant requested that the decision under appeal be set aside and the patent be maintained as granted (main request) or on the basis of any of the first to eighth auxiliary requests also submitted with the grounds of appeal.
- V. A response was filed by the opponent (hereinafter: "the respondent") with its letter of 8 March 2013.
- VI. By communication of 12 August 2013, the parties were summoned to oral proceedings. In the preliminary opinion, annexed to the summons, the board observed as regards the requirements of Article 100(b) EPC that it had to be examined whether the skilled person was able without undue burden to select appropriate components, in particular appropriate non-self-crosslinking acrylic emulsions, which led to cohesive coatings that met the cohesive strength requirement of claim 1.
- VII. With its letter of 27 March 2014, the appellant filed ninth to seventeenth auxiliary requests together with documents denoted "D1" to "D9".

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- VIII. On 7 April 2014, oral proceedings were held before the board, by the end of which the appellant maintained its main request as its only request.
- IX. The respondent's arguments, in as far as relevant for the present decision, can be summarised as follows:

The invention underlying claim 1 of the main request was insufficiently disclosed.

It was an essential feature of claim 1 that the coating composition was suitable to form a closure that was peelable, non-resealable and had a certain cohesive strength after being dried at 127°C. These properties of the closure were nothing else than the result to be achieved in the opposed patent.

The skilled person did however not know from the patent what components to select in order to obtain the desired properties. It was in particular not true that all non-self-crosslinking acrylic emulsions available in the art led to coatings with the desired properties. Furthermore, the skilled person did not know how much water had to be incorporated into the coating composition. More particularly, the amount of water to be present in the cohesive coating according to claim 1 was ill-defined since it was unclear whether this amount referred to the amount of water added to the further components of the cohesive coating composition or whether it referred to the water amount of the composition in total. Also the definition of the natural rubber latex component in claim 1 was unclear such that the claim in this respect had to be interpreted broadly to cover non-commercially available rubber latex emulsions.

Furthermore, the properties referred to in claim 1 were ambiguous. More specifically, the definition of being peelable and non-resealable in claim 1 was ambiguous, since peelability and non-resealability depended on the type of substrate, the temperature and the force with which peeling and resealing was attempted. Furthermore, the cohesive strength requirement in claim 1 was also unclear since it was not specified how long the closure had to be dried, at what air humidity the cohesive strength was to be tested and on what type of substrate the closure had to be formed. In this respect, the cohesive strength in examples 1 and 5 of the patent varied by 17% for one and the same cohesive coating depending on what substrate was used. The values of comparative examples 1 to 3 even varied by more than 100%. Since the properties aimed at in claim 1 were thus not properly defined, the skilled person did not know which embodiments were according to claim 1 and thus could not rework the invention.

Lastly, the examples of the opposed patent were not according to claim 1 since (i) the cohesive coating compositions in these examples did not contain any additional water or additional ingredients as defined in claim 1 and (ii) the drying step before the determination of the cohesive strength was performed at 82°C rather than 127°C.

X. The appellant's arguments, in so far as relevant for the present decision, can be summarised as follows:

The invention underlying claim 1 of the main request was sufficiently disclosed.

It was true that not all non-self-crosslinking acrylic emulsions available in the art led to cohesive coatings

with the properties aimed at in claim 1. However, sufficient information was present in the patent since the patent disclosed in paragraph [0023] specific nonself-crosslinking acrylic emulsions that led to coatings with the desired properties. In this respect, example 2 of D1 as cited during the examination procedure did not establish that it was not possible to obtain the desired properties with these specific acrylic emulsions, since in this example the adhesive coating did not contain any acrylic emulsion.

As regards the alleged ambiguity of the cohesive strength requirement, firstly there was no such ambiguity since the test to determine the cohesive strength was described in detail in the patent. Secondly, even if an ambiguity was present, this would not matter since all that the skilled person would need to do was to make a composition with the components as defined in claim 1 in order to obtain the required cohesive strength. In this context, it was relevant that the lower limit of 118.11 g/cm given in claim 1 for the cohesive strength was a very low threshold value, which was far exceeded if the specific acrylic emulsions specified in paragraph [0023] of the patent were chosen. Furthermore, any ambiguity as regards the cohesive strength requirement, if present, at most affected the edge of claim 1. In this respect decision T 608/07 was relevant.

Contrary to the respondent's assertion, the water content in claim 1 was clear. More specifically this water content did not include the water present in the rubber latex or acrylic emulsion. On the contrary it referred to the amount of water that was added to these emulsions.

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As regards the broad definition of the rubber latex in claim 1, this did not lead to insufficiency of disclosure since whatever type of rubber the skilled person selected, he would obtain a composition that met the cohesive strength requirement.

Further, contrary to the respondent's assertion, the terms "peelable" and "non-resealable" in claim 1 were well understood by the skilled person as referring to the suitability of the claimed cohesive coating to form closures on a flexible substrate that could be peeled off and not resealed thereafter by manual force.

Finally, it was not a requirement of Article 83 EPC that the examples of a patent were according to the claims.

XI. During the oral proceedings:

The board observed that rubber latex emulsions and acrylic emulsions contained more than 0.01% by weight of water so that the amount of water contained in the claimed composition in total had to be above 0.01 weight percent. The citation of a lower limit of 0.01% by weight of water in claim 1 could thus only imply that the water amount in the claim referred to the amount of added water.

After the chairman had announced the conclusion of the board that the ground of opposition under Article 100(b) EPC did not prejudice the maintenance of the patent as granted (see below) the chairman further indicated that since the opposition division had not yet decided on novelty or inventive step, or on the admissibility of the ground of opposition under Article 100(c) EPC raised by the opponent after the expiry of the opposition period, it

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appeared appropriate to remit the case to the opposition division for further prosecution. Neither party objected to this course.

- XII. The appellant requested that the decision under appeal be set aside and the patent be maintained as granted.
- XIII. The respondent requested that the appeal be dismissed.

Reasons for the Decision

- 1. The appeal is admissible.
- 2. Main request Sufficiency of disclosure
- Claim 1 refers to a water based cold seal cohesive coating containing certain amounts of a natural rubber latex emulsion, a non-self-crosslinking acrylic emulsion, water and one or more further ingredients. The cohesive coating is characterised in claim 1 by the further requirement that it forms a peelable and non-resealable closure for a flexible package, said closure having a cohesive strength of at least about 118 g/cm after being dried on a substrate for said package at a temperature of above 127°C (hereinafter, this will be referred to as the "cohesive strength requirement"; for the exact wording of claim 1, see point III above).
- 2.2 Consequently, the claimed cohesive coating is defined by reference both to compositional features and functionally by the result to be achieved, namely a closure that is peelable, non-resealable and that meets the cohesive strength requirement.

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- 2.3 For the invention underlying claim 1 to be sufficiently disclosed, the skilled person must be able, on the basis of the patent specification and his common general knowledge at the priority date of the patent, to obtain without undue burden cohesive coatings that meet this functional definition of claim 1.
- 2.4 The appellant acknowledged during the oral proceedings before the board that not all non-self-crosslinking acrylic emulsions available in the art at the priority date lead to cohesive coatings that meet this functional definition. It is thus not enough to choose whatever non-self-crosslinking acrylic emulsion available in the art and to combine it with the further components of claim 1 in order to obtain the required peelability, non-resealability and cohesive strength. The question therefore arises whether the patent enables the skilled person to select without undue burden those non-self-crosslinking acrylic emulsions that lead to cohesive coatings meeting the functional definition of claim 1.
- 2.5 The patent (paragraph [0023]) teaches the skilled person that the non-self-crosslinking acrylic emulsions may be selected from styrene/acrylic, nitrile/acrylic and all-acrylic (i.e. 100% acrylic) emulsions.

The respondent has not provided any proof that these specific acrylic emulsions referred to in the patent do not lead to cohesive coatings that meet the functional definition of claim 1.

In this respect, it is noted that example 2 of GB 1,052,953 (cited as "D1" during the examination proceedings) and discussed during the oral proceedings before the board does not constitute such proof, since

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the cohesive coating in this example does not contain any acrylic emulsion at all (the acrylic emulsion is only contained in a key-coat underneath the cohesive coating).

In the absence of such evidence, it must be assumed in the appellant's favour that the use of any of the <u>specific</u> acrylic emulsions referred to in the opposed patent leads to cohesive coatings that meet the functional definition of claim 1. All that the skilled person thus needs to do in order to carry out the invention as defined in claim 1 is to use one of these specific acrylic emulsions and combine it with the further components cited in the claim. Hence, the patent specification enables the skilled person to carry out the invention as defined in this claim without any undue burden.

2.6 The respondent argued that the functional definition of being peelable and non-resealable in claim 1 was unclear. The respondent in particular argued that the quality of being peelable and non-resealable depended on the type of substrate, the temperature and the force with which peeling and re-sealing was attempted.

The board does not agree. As set out by the appellant, the terms "peelable" and "non-resealable" would be understood by the skilled person to mean that the claimed composition is suitable to form a closure with a flexible substrate that can be peeled off and not resealed in each case using manual force. Irrespective of this, as set out in T 593/09 (not published in OJ EPO; headnote and point 4.1.4 of the Reasons), an ambiguity in itself is not a reason to deny sufficiency of disclosure. On the contrary, what is decisive for establishing insufficiency is whether the ambiguity is

such that the skilled person is not able to identify without undue burden suitable compounds necessary to solve the problem underlying the patent at issue (see also T 608/07, not published in OJ EPO; points 2.5.1 and 2.5.2 of the Reasons). As set out in point 2.5 above, in the present case the patent enables the skilled person to select appropriate acrylic emulsions that lead to the desired peelability and non-resealability. Consequently, the alleged ambiguity of the functional terms "peelable" and "non-resealable" in claim 1 does not lead to insufficiency of disclosure.

2.7 The respondent further argued also that the cohesive strength requirement in claim 1 was unclear since the method to determine the cohesive strength was not sufficiently defined. It was in particular not specified how long the closure had to be dried, on what type of substrate the closure had to be formed and at what air humidity the cohesive strength was to be tested.

The board acknowledges that the cohesive strength requirement is ambiguous since several details about the measurement method are missing in the patent. However, in the same way as for the peelability and non-resealability, the respondent has not shown that this ambiguity leads to insufficiency of disclosure. A proof is in particular missing that applying a cohesive coating containing any of the specific acrylic emulsions identified in the patent does not lead to a cohesive strength as required by claim 1, whatever measurement method is applied. In this context, it was explained by the appellant that the lower limit of 118.11 g/cm given in claim 1 for the cohesive strength was a very low threshold value, and that this was by far exceeded if the specific acrylic emulsions as

specified in paragraph [0023] of the patent were chosen. This was not challenged by the respondent and the board accepts it. It must thus be assumed that all that the skilled person needs to do in order to carry out the invention is to select one of the specific acrylic emulsions as specified in paragraph [0023] of the patent and to combine it with the further components cited in claim 1 (see point 2.5 above).

Irrespective of this, in view of the low threshold value in claim 1 and the resulting broad range of cohesive strengths covered by the claim, any ambiguity as regards the cohesive strength requirement at most affects the edge of this claim and also for this reason does not lead to insufficiency of disclosure (T 608/07, not published in OJ EPO; points 2.5.1 and 2.5.2 of the Reasons).

2.8 The respondent also argued (as did the opposition division) that the amount of water to be present in the cohesive coating of claim 1 was ill-defined since it was unclear whether this amount referred to the amount of water added to the further components of the cohesive coating composition or whether it referred to the water amount of the composition in total, including that contained in the rubber latex and acrylic emulsions. The board does not agree with this argument. As not disputed by the respondent, rubber latex emulsions and acrylic emulsions contain more than 0.01% by weight of water such that the amount of water contained in the claimed composition in total must be above 0.01 weight percent. The reference to a lower limit of 0.01% by weight of water in claim 1 can thus only mean that the water amount in the claim refers to the amount of added water rather than that present in the composition in total.

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- The respondent additionally argued that the term
 "natural rubber latex" in claim 1 had to be interpreted broadly and covered non-commercially available products. The opposition division also reasoned that the solids content of the rubber latex was not defined. The board agrees with these points but is unable to see how this leads to any insufficiency of disclosure in the present case. The respondent has in particular not shown that particular non-commercial natural rubber latex emulsions or rubber latex emulsions with particular solid contents as covered by claim 1 do not lead to cohesive coatings meeting the functional definition in the claim.
- 2.10 The respondent finally argued that the examples in the opposed patent with the non-self-crosslinking acrylic emulsion were not according to claim 1 since (a) the cohesive coating compositions in these examples did not contain any water or additional ingredients as defined in claim 1 and (b) the drying step before the determination of the cohesive strength was performed at 82°C rather than 127°C. The board agrees with this. However, while the fact that examples are not according to the claims may lead to an objection under Article 84 EPC, the board fails to see how this results in any insufficiency of disclosure in the present case.
- 2.11 The invention underlying claim 1 is thus sufficiently disclosed. The ground under Article 100(b) EPC therefore does not prejudice the maintenance of the patent as granted.

- 3. Main request Remittal
- 3.1 Since the opposition division has not yet decided on novelty or inventive step, or the admissibility of the ground of opposition under Article 100(c) EPC, it is appropriate to remit the case to the opposition division for further prosecution. No objections were raised in this respect by the parties.

Order

For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- The case is remitted to the opposition division for further prosecution on the basis of the claims as granted.

The Registrar:

The Chairman:



M. Cañueto Carbajo

W. Sieber

Decision electronically authenticated