Datasheet for the decision of 4 February 2020

Case Number: T 0300/16 - 3.3.09
Application Number: 07821936.7
Publication Number: 2086341
IPC: A23F5/40, A23C11/00
Language of the proceedings: EN

Title of invention:
SOLUBLE FOAMING BEVERAGE POWDER

Patent Proprietor:
Société des Produits Nestlé S.A.

Opponents:
Mondelez Global LLC
Herzog Fiesser & Partner Patentanwälte PartG mbB - withdrawn

Headword:

Relevant legal provisions:
EPC Art. 56
RPBA Art. 13
Keyword:
Admission of late-filed documents (no)
Main and auxiliary requests: inventive step (no)

Decisions cited:

Catchword:
Case Number: T 0300/16 - 3.3.09

DECISION
of Technical Board of Appeal 3.3.09
of 4 February 2020

Appellant: Société des Produits Nestlé S.A.
(Patent Proprietor)
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Representative: Plougmann Vingtoft a/s
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Appellant: Mondelez Global LLC
(Opponent 1)
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Representative: Boult Wade Tennant LLP
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Composition of the Board:

Chairwoman: E. Kossonakou
Members: N. Perakis
F. Rinaldi
Summary of Facts and Submissions

I. This decision concerns the appeals filed by the patent proprietor and opponent 1 against the opposition division's interlocutory decision that the patent as amended (according to auxiliary request 2 filed during the oral proceedings of 7 October 2015) meets the requirements of the EPC.

Opponent 2 withdrew its opposition by letter of 16 February 2016 and is no longer party to the proceedings before the EPO.

II. As both parties are appellants and respondents at the same time, the board will continue to refer to them as "the patent proprietor" and "the opponent".

III. Auxiliary request 2 contains two independent product claims, namely claims 1 and 3. Only claim 1 is relevant for this decision. It reads as follows:

"1. A composition comprising the following ingredients

(a) a soluble foamer ingredient containing gas under pressure and releasing gas upon reconstitution and
(b) a beverage or foodstuffs powder or ingredient having retarded solubility;

wherein the beverage or foodstuffs powder has a solubility that is retarded so that a foam has formed by the foamer ingredient before the beverage or foodstuffs powder has dissolved, when the composition is reconstituted with a liquid to form a beverage or foodstuff, and
wherein the foamer ingredient releases the gas being present upon addition of liquid in an amount of at least about 1 ml of gas [at] ambient conditions per gram of soluble foamer ingredient, and

wherein the beverage or foodstuffs powder or ingredient having retarded solubility is a powder containing coffee."

IV. The documents cited during the opposition proceedings included, inter alia:

D3: WO 01/08504 A1
D4: EP 0 888 066 B1
D6: WO 06/023565 A1
D10: Experimental data (three pages)

V. In particular with regard to inventive step, the opposition division considered that:

- D4 represented the closest prior art,

- the composition of claim 1 differed from the composition of D4 in the foamer, which released the gas being present upon addition of liquid in an amount of at least about 1 ml of gas at ambient conditions per gram of soluble foamer ingredient,

- the technical problem in view of D4 was the provision of a soluble composition which upon reconstitution made it possible to obtain a whiter foam of a beverage and
the solution provided by the subject matter of claim 1 was not obvious in view of D6 because the skilled person would not have considered this document, which focused only on the provision of a high amount of foam and did not correlate the height of the foam with its colour.

VI. The patent proprietor requested that the patent be maintained in amended form based on the claims of the main request or any of auxiliary requests 1 to 8 filed with its letter dated 23 August 2016.

VII. The opponent requested that the interlocutory decision be set aside and that the patent be revoked in its entirety. Further arguments were submitted by letter dated 24 August 2016.

VIII. On 28 November 2019 the board issued a communication in preparation for the oral proceedings addressing the issues to be discussed.

IX. By letter dated 20 December 2019 the patent proprietor withdrew the main request and auxiliary requests 1 to 5. Auxiliary request 6 became the (new) main request, auxiliary request 7 became (new) auxiliary request 1 and auxiliary request 8 became (new) auxiliary request 2.

Claim 1 of the (new) main request is identical to claim 1 held allowable by the opposition division (point III), the main request thus being reformulated in order that the opponent's appeal should be dismissed.

Claim 1 of the (new) auxiliary request 1 differs from claim 1 of the main request in that the foamer
ingredient releases the gas present upon addition of liquid \textit{in an amount of at least 3 ml of gas} \textit{[at]} ambient conditions per gram of soluble foamer ingredient.

Claim 1 of the (new) auxiliary request 2 differs from claim 1 of the main request in that the foamer ingredient releases the gas present upon addition of liquid \textit{in an amount of at least 5 ml of gas} \textit{[at]} ambient conditions per gram of soluble foamer ingredient.

The patent proprietor also filed the following documents:

D13: excerpt from Dictionary.com, in order to provide the definition of the term "upon"

D14: EP 2 474 234 B1

D15: the opposition division's preliminary opinion in the opposition proceedings of D14 (for the interpretation of the term "upon").

X. By letter dated 16 January 2020 the opponent requested that documents D13 to D15 not be admitted into the proceedings.

XI. The oral proceedings took place before the board on 4 February 2020 as scheduled. During the oral proceedings the opponent acknowledged that D13 illustrated common general knowledge and thus restricted its objection to the admission of D14 and D15.
XII. The arguments of the patent proprietor relevant to the present decision may be summarised as follows:

- Documents D14 and D15 should be admitted into the proceedings. D15 was the preliminary opinion of the opposition division in the proceedings of a patent belonging to the patent proprietor (D14), which was filed as a divisional application on the basis of the application of the patent in suit. This preliminary opinion discussed when the foam started to develop and when the coffee powder started to dissolve.

- The subject-matter of claim 1 of the main request involved an inventive step in view of D4 as the closest prior art. The subject-matter of claim 1 differed from D4 only as regards the amount of gas released by the foamer upon addition of a liquid. The technical evidence of the patent in suit, together with D10, showed that this feature led to a coffee beverage with an increased foam height and an improved foam whiteness. Therefore, the technical problem in view of D4 was the provision of a composition which provided a coffee beverage with improved foam whiteness (less coloration) as well as an increased foam height. D3 and D6 disclosed foamer ingredients of a coffee beverage which released upon addition of liquid at least 1 ml of gas, but linked the use of the foamer ingredient only to the amount/height of foam that was produced. There was nothing in these documents about the effect of the foamer ingredient on the whiteness degree of the foam. Nor would the skilled person have made any correlation between the whiteness degree and the amount of foam formed upon reconstitution. With regard to the amount of foam,
D4 did not disclose that the foam formation was unsatisfactory, which would have motivated the skilled person to improve it. Defining the problem on the basis of the foam volume alone amounted to an *ex post facto* analysis.

- The subject-matter of claim 1 of auxiliary requests 1 and 2 also involved an inventive step for the same reason as that applying to the main request.

XIII. The arguments of the opponent relevant to the present decision may be summarised as follows:

- Late-filed documents D14 and D15 should not be admitted into the proceedings, because the preliminary opinion of the opposition division regarding the filed opposition against D14 was not relevant to the present case.

- The subject-matter of claim 1 of the main request did not involve an inventive step. The opponent agreed with the patent proprietor as regards the choice of the closest prior art and the distinguishing feature of the composition of claim 1 over that of D4. However, it considered that the technical problem in view of D4 and the available technical evidence consisted in the provision of a composition with an increased amount of foam. D3/D6 disclosed the use of foamer ingredients which released entrapped gas under pressure in an amount of at least 1 ml of gas per gram of soluble foamer ingredient. Thus, it would have been obvious for the skilled person to combine D3/D6 with D4 in an attempt to increase the height/amount of foam.
The subject-matter of claim 1 of auxiliary requests 1 and 2 did not involve an inventive step also in view of the obvious combination of D3/D6 with D4.

XIV. At the end of the oral proceedings the parties' requests were the following:

The patent proprietor requested that the opponent's appeal be dismissed or, alternatively, that the patent be maintained on the basis of one of auxiliary requests 1 or 2 originally filed with the reply to the opponent's grounds of appeal and re-filed with new numbering by letter dated 20 December 2019 (see point IX). The patent proprietor also requested that documents D13 to D15 be admitted into the proceedings.

The opponent requested that the interlocutory decision under appeal be set aside and that the European patent No. 2 086 341 be revoked. The opponent also requested that documents D14 and D15 not be admitted into the proceedings.

 Reasons for the Decision

1. Admission of D13 to D15

1.1 D13, which is an excerpt from a dictionary, illustrates common general knowledge and is therefore admitted into the proceedings.

1.2 Late-filed documents D14 and D15 respectively correspond to a patent based on a divisional application filed with respect to the application of the patent in suit and to the opposition division's
preliminary opinion concerning that patent. D14 and D15 were submitted by the patent proprietor in order to support its interpretation of the subject-matter of claim 1. These documents, on the one hand relate to different proceedings before the EPO, and on the other do not establish common general knowledge. Therefore they were not admitted into the present proceedings.

2. **Main request /inventive step**

2.1 Novelty of the subject-matter of claim 1 was not contested by the opponent, so only the issue of inventive step needs to be assessed.

2.2 The closest prior art

2.2.1 The general technical background of the claimed invention is defined in the following passages of the patent in suit:

"The present invention relates to a soluble beverage or foodstuffs powder, more specifically to a foaming soluble beverage or foodstuffs powder. The invention relates to a mixture of a soluble foamer ingredient and a soluble beverage or foodstuffs ingredient. The soluble foamer ingredient upon addition of a liquid induces the formation of or forms a foam [. T]his is achieved by an ingredient comprising a matrix and a gas under pressure. The soluble beverage or foodstuffs ingredient, which may be in the form of a powder is prepared in such a way that the solubility is retarded." (page 2, lines 5-9);

"Upon addition of a liquid the foamer and the beverage or foodstuff are separated before being dissolved resulting in a nice and neat physical separation in two
layers, which is best visible if the colour of the foamer and beverage or foodstuffs powder are different." (page 3, lines 31-33); and

"In the following description the invention will be described with reference to a soluble creamer ingredient, which is one of the preferred applications of the present invention. It will however be appreciated that the invention also may have other applications such as beverages, desserts, sauces, soups etc." (page 3, line 58 to page 4, line 3).

2.2.2 The board agrees with the parties that D4 can be considered to represent the closest prior art since it discloses a soluble coffee beverage powder which, upon the addition of a liquid (water), is capable of forming a coffee beverage having a foamed upper surface. The soluble beverage powder comprises a soluble powder containing gas for foaming and a soluble coffee powder of delayed water solubility. D4 comes from the same technical field as the patent in suit, namely that of soluble foaming foodstuff powders, and the foaming beverage composition disclosed is structurally very close to the claimed beverage or foodstuffs composition.

2.2.3 There was agreement between the parties that the composition of claim 1 differs from the soluble coffee beverage powder of D4 only as far as the foamer ingredient is concerned, which according to claim 1 releases the gas being present upon addition of liquid in an amount of at least about 1 ml of gas at ambient conditions per gram of soluble foamer ingredient. The board concurs with the parties on this point.
2.3 The technical problem and its solution

2.3.1 Tables 1 and 2 of the patent in suit, together with the technical evidence of D10, provide the values measured for the foam height and the whiteness degree of the foam of cappuccino beverages according to the prior art D4 (comparative example 1) and cappuccino beverages according to the claimed invention (example 2).

Table 1

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee</td>
<td>1.2</td>
<td>2.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Coffee whitener</td>
<td>10.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Whiteness degree</td>
<td>80.6</td>
<td>74.8</td>
<td>69.3</td>
</tr>
<tr>
<td>Foam height (mm)</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 2

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee</td>
<td>1.2</td>
<td>2.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Full milk powder</td>
<td>7.0</td>
<td>7.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Foamer ingredient</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Sucrose</td>
<td>2.7</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Whiteness degree</td>
<td>87.5</td>
<td>83.8</td>
<td>79.8</td>
</tr>
<tr>
<td>Foam height (mm)</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Gas release (ml/g foamer)</td>
<td>9.7</td>
<td>10.1</td>
<td>10.4</td>
</tr>
</tbody>
</table>

2.3.2 The compositions of samples 4 to 6 of comparative example 1 consist of a coated standard agglomerated coffee and a commercially used coffee whitener containing gas. The compositions of samples 7 to 9 of
example 2 comprise coated agglomerated coffee, in the same amount as the respective sample of comparative example 1, which is mixed with a full milk powder and a foamer ingredient, the total amount of which is the same as the amount of the coffee whitener in the corresponding sample of comparative example 1. It is true, that the compositions of samples 7 to 9 contain sucrose but as the patent proprietor asserted, without being contradicted by the opponent, this ingredient, in the amount used, has no influence on the whiteness degree or the height of the foam layer.

The patent proprietor argued, on the basis of the above tables, that the cappuccino beverages according to the claimed invention (samples 7 to 9 of table 2) had a foam layer which was whiter and higher (as measured in mm) than the respective foam layer (having the same amount of dissolved coffee) of the comparative cappuccino beverages (samples 4 to 6 of table 1). The whiteness degree and the height of the foam layer of the cappuccino beverages according to the claimed invention were closer to those of the foam layer of a reference cappuccino beverage, i.e. a whiteness degree of 89.2 and a foam height of 21 mm (table 3 of the patent in suit).

2.3.3 During the oral proceedings the board explained that the technical evidence relates to cappuccino beverages, whereas claim 1 relates not only to coffee beverages but also to other beverages and foodstuffs. Furthermore, as the opponent correctly noted during the oral proceedings, the foamer ingredient of claim 1 is not limited to the exemplified coffee whitener of table 1 and the full milk powder (used as a non-foaming coffee creamer) of table 2, which provide a white or whiter (i.e. less coloured) foam. Indeed, a coffee
whitener is not a compulsory component of the foamer ingredient, let alone a compulsory ingredient of the composition of claim 1.

In this context reference is made to the patent in suit, which clearly discloses that only according to an aspect of the invention does a foamer ingredient contain gas under pressure and an ungassed coffee whitener (and optionally sugar, flavours, thickeners or other ingredients) in a dry mix (page 3, lines 40-42). The whitener (powder) can also be a separate ingredient of the composition and not part of the foamer ingredient (page 5, lines 18-20). The fact that a whitener is not a compulsory component of the foamer ingredient is corroborated by the disclosure in the patent in suit that the soluble foamer ingredient can be a creamer ingredient which contains further components such as colours (page 5, lines 5-6), which are understood to include a whitener.

Thus, for compositions according to claim 1, which do not comprise any whitener or any full milk powder, the issue of whiteness of the foam is irrelevant.

Under these circumstances, the board does not agree with the patent proprietor that the technical problem is the provision of a coffee composition which upon reconstitution gives a coffee beverage which combines a higher amount of foam with a whiter (less coloured) foam. The improved whiteness (less coloration) of the foam is not a problem that is solved across the entire scope of the claim.

2.3.4 Nevertheless, samples 7 to 9 of table 2 according to claim 1 provide a larger amount of foam (expressed in mm of foam height) than the samples 4 to 6 of table 1
according to D4. This comparison shows that the use of a foamer ingredient which releases gas upon addition of liquid in an amount of at least about 1 ml of gas at ambient conditions per gram of soluble foamer ingredient leads to a beverage (or foodstuffs) containing coffee with a larger amount of foam.

Thus, the **objective technical problem** in view of D4 is the provision of a coffee composition which upon reconstitution with a liquid forms a beverage (or foodstuffs) contains coffee with a larger amount of foam.

2.4 Obviousness

2.4.1 The question which remains to be answered is whether the skilled person, starting from D4 and aiming to solve the set technical problem, would have found in the state of the art the motivation to use a foamer ingredient which releases gas upon addition of liquid in an amount of at least about 1 ml of gas at ambient conditions per gram of soluble foamer ingredient.

2.4.2 D3 discloses powdered soluble foamer ingredient for producing enhanced foam in foodstuffs and beverages. The particles of this ingredient are formed of a matrix containing entrapped gas. The gas is pressurised to release upon addition of liquid at least about 1 ml of gas at ambient conditions per gram of soluble foamer ingredient. When used in a soluble beverage powder which contains a soluble creamer powder, enhanced amounts of foam are generated, the volumes of which are much larger than the volume of foam generated by conventional powders such as conventional foaming creamer powders (abstract; page 1, lines 3-10 and page 2, lines 6-14; page 7, lines 19-21). The soluble
beverage powder of D3 may comprise a soluble coffee powder, which means that in this case the beverage is a coffee beverage (page 3, lines 20-23; page 8, lines 4-5). Since D3 is in the same technical field as D4, the skilled person would obviously consult it and combine it with D4 in order to increase the amount of foam. By doing so, the skilled person would arrive at the subject-matter of claim 1 without involving an inventive step.

2.4.3 The disclosure of D6 is similar to that of D3 (paragraphs [0016], [0018], [0031] and [0045]; claims 1, 4 and 5). Thus, the skilled person would obviously combine D6 with D4 and would arrive at the subject-matter of claim 1 without involving an inventive step.

2.5 As the subject-matter of claim 1 lacks an inventive step, the main request is not allowable.

3. **Auxiliary requests 1 and 2 /inventive step**

3.1 Claim 1 of auxiliary requests 1 and 2 differs from claim 1 of the main request in that the foamer ingredient releases the gas being present upon addition of liquid in an amount of at least 3 ml of gas (auxiliary request 1) or in an amount of at least 5 ml of gas (auxiliary request 2) at ambient conditions per gram of soluble foamer ingredient. The released amount of at least 3 ml is one of the obvious possibilities in view of D3 (page 2, lines 15-17 and 33-35; claim 1 and claim 7) and the released amount of at least 5 ml is disclosed in D3 (page 3, lines 1-2; claim 16).

3.2 Similarly to claim 1 of the main request, claim 1 of the requests under consideration does not specify that the foamer ingredient contains a whitener. Therefore,
its subject-matter lacks an inventive step for the reasons provided above for the subject-matter of claim 1 of the main request.

3.3 Thus, auxiliary requests 1 and 2 are not allowable either.

4. In conclusion, none of the patent proprietor's requests is allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar: The Chairwoman:

K. Exner E. Kossonakou

Decision electronically authenticated