Datasheet for the decision
of 1 August 2017

Case Number: T 0088/14 - 3.3.09

Application Number: 06777132.9

Publication Number: 1921924


Language of the proceedings: EN

Title of invention:
Low-fat confectionery product being a water-in-oil emulsion

Patent Proprietor:
Nestec S.A.

Opponent:
Mondelez UK Holdings & Services Limited

Headword:

Relevant legal provisions:
EPC Art. 54, 56
Keyword:
Priority - partial priority (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:
G 0001/15, T 0409/91

Catchword:
DECISION
of Technical Board of Appeal 3.3.09
of 1 August 2017

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted on
22 October 2013 maintaining European patent
No. 1921924 in amended form.
Composition of the Board:

Chairman: W. Sieber
Members: J. Jardón Álvarez
        F. Blumer
Summary of Facts and Submissions

I. This decision concerns the appeal filed by the patent proprietor (in the following: the appellant) against the interlocutory decision of the opposition division that European patent No. 1 921 924 as amended met the requirements of the EPC.

II. The opponent (in the following: the respondent) had requested revocation of the patent in its entirety on the grounds of Article 100(a) (lack of novelty and inventive step) and (b) EPC.

The documents cited during the opposition proceedings included:

D2: EP 0 547 658 B1;

D7: WO 95/24831 A1;

D9: WO 2004/017744 A1; and


III. The decision of the opposition division was based on a main request and five auxiliary requests, with the opposition division maintaining the patent in amended form on the basis of the claims of the then pending auxiliary request V.

The only request relevant to the appeal proceedings is auxiliary request I (filed as auxiliary request III on 7 June 2013), which corresponds to the third auxiliary request in the appeal proceedings. Independent claims 1 and 3 of this request read as follows:
"1. Low-fat confectionery product consisting of a water-in-oil emulsion wherein the aqueous phase represents at least 60% of the final product and the fat phase at most 20%, the water-in-oil emulsion further comprising cocoa particles dispersed in the fat phase and at least a structuring agent, wherein the structuring agent is taken from the group consisting in polysaccharides and proteins, or both."

"3. Process for manufacturing a low fat confectionery product according to one of claims 1 or 2, comprising the steps of:

(a) Mixing of the ingredients of the aqueous phase below 40°C
(b) Heating of the aqueous phase at a temperature above 50°C, preferably at a temperature greater than 70°C,
(c) Emulsification of the aqueous phase in the fat phase at a temperature above ambient, preferably at a temperature equal or greater than 50°C
(d) Cooling the water-in-oil emulsion at a temperature above ambient
(e) Adding particles in the fat phase."

Concerning this request, the opposition division held that:

- The invention was sufficiently disclosed, because the claims encompassed only water-in-oil emulsions, thus implying a minimum fat content.
- Claim 1 was not entitled to priority where the water phase was more than 90% of the final product. Consequently D12 was prior art only for the range greater than 90% aqueous phase.
- The subject-matter of the claims was novel but lacked inventive step starting from D7 as the closest prior art. Based on the sole difference over D7, namely the presence of cocoa particles dispersed in the fat phase, the opposition division defined the problem to be solved as being how to impart a chocolate flavour to a water-in-oil emulsion. In its view, the addition of cocoa was obvious and even taught in D7 as an optional feature. Moreover the wording "dispersed in the fat phase" only excluded the scenario of not having all cocoa particles in the aqueous phase and therefore did not add an effective limitation to the scope of the claim.

IV. The statement of the appellant setting out the grounds of appeal was filed on 20 February 2014. It included a main and six auxiliary requests and the following document:


The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or one of the auxiliary requests.

V. The respondent filed its reply with letter dated 9 July 2014.

VI. With letter dated 22 August 2014 the appellant provided comments on the respondent's letter.
VII. In a communication dated 20 February 2017 in preparation for oral proceedings the board indicated the issues to be discussed during the oral proceedings.

The board also expressed its preliminary view that:
- in view of G 1/15 partial priority should be acknowledged for the embodiment disclosed in the priority document;
- the board agreed with the finding in the appealed decision that the requirement of sufficiency of disclosure was met; and
- the novelty objection of the respondent did not apply if partial priority were acknowledged.

VIII. By letter dated 30 June 2017 the appellant withdrew its sixth auxiliary request and filed a new sixth and a seventh auxiliary request.

IX. On 1 August 2017 oral proceedings were held before the board in the absence of the respondent as announced by letter dated 25 July 2017.

During the oral proceedings the appellant withdrew all its requests except for the third auxiliary request which remained its sole request. The claims of this request correspond to those of auxiliary request I before the opposition division (see point III above).

X. The arguments of the appellant, insofar as they are relevant for the present decision, may be summarised as follows:

- The entitlement to priority was valid for the embodiment disclosed in the priority document. Consequently, priority document D12 was not relevant for novelty.
- The invention was sufficiently disclosed. Claim 1 was directed to water-in-oil emulsions and thus limited in practice to those products having an amount of fat phase allowing the formation of such emulsion.

- The claimed subject-matter involved an inventive step. The products of D7, the closest prior art, included a non-gelling thickener and were in the form of a filling or a spread, that is to say non-solid. In the present invention, the structuring agent allowed the gelation of water droplets and helped to disperse the cocoa particles in the fat phase. The obtained emulsion was surprisingly firm compared to D7. Firstly, D7 did not disclose that the cocoa particles should be added to the fat phase. Secondly, there was no hint in D7 or the other prior art that it was necessary to structure the water droplets in order to obtain a firm water-in-oil emulsion.

XI. The written arguments of the respondent may be summarised as follows:

- Claim 1 was not entitled to priority. The priority application did not disclose a water-in-oil emulsion having an aqueous phase content of more than 90%, and hence could not be relied upon to support the feature "at least 60%" aqueous phase in claim 1. As a consequence, claim 1 as a whole was not entitled to priority and its subject-matter lacked novelty over the disclosure of the published priority document D12.
- Claim 1 was not sufficiently disclosed across the whole scope of the claim. Claim 1 disclosed only an upper limit of 20% for the fat phase of the water-in-oil-emulsions. It was not possible to form water-in-oil emulsions at very low fat levels.

- The claimed subject-matter lacked inventive step over D7 in combination with common general knowledge or the teaching of D2 (erroneously mentioned as D5 by the respondent), alternatively starting from D9 and/or D2 as the closest prior art.

XII. The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 3 of the sole request, filed as third auxiliary request on 20 February 2014 with the statement setting out the grounds of appeal.

The respondent requested that the appeal be dismissed.

Reasons for the Decision

THIRD AUXILIARY REQUEST (sole request)

1. Sufficiency of disclosure

1.1 The opposition division held that the invention was sufficiently disclosed. It held that claim 1 was limited to a "water-in-oil emulsion" which implicitly imposed a minimum fat content. The opposition division also concurred with the then patent proprietor that decision T 0409/91 did not apply in the present case. Claim 1 of the case underlying that decision related to a fuel oil having a wax content of at least 0.3 weight%
at a temperature of 10°C below the wax appearance
temperature, the wax crystals at that temperature
having an average particle size of less than 4000 nm.
In contrast to present claim 1, where the term "water-
in-oil emulsion" implied a minimum fat content, the
term "fuel oil" did not imply a lower limit for the
size of the wax crystals.

1.2 In its reply to the statement of grounds of appeal the
respondent maintained its objection that claim 1 was
"not sufficiently disclosed across the whole of the
scope claimed". It merely noted that claim 1
encompassed emulsions that could not be formed at
(very) low fat levels. However, the respondent did not
provide any reasons why the finding of the opposition
division, that there was indeed an implicit lower limit
to the fat range in claim 1 in order to obtain a water-
in-oil emulsion, was wrong.

1.3 Under these circumstances, the board sees no reason to
revise the finding of the opposition division that the
invention is sufficiently disclosed.

2. Priority - partial priority

2.1 The patent in suit was filed on 31 August 2006,
claiming priority from EP 05107975 (D12) filed on
31 August 2005.

2.2 It was undisputed that the priority document D12
discloses a low fat confectionery product consisting of
a water-in-oil emulsion, wherein the structuring agent
is taken from the group consisting in polysaccharides
and proteins, or both, and comprising cocoa particles
dispersed in the fat phase (claim 7, dependent on
claim 2, page 10, lines 14 to 15 of D12 as filed).
However, whilst claim 1 now specifies an aqueous phase of "at least 60%", the corresponding disclosure of D12 is limited to "60-90% aqueous phase" (cf. claim 1).

2.3 The respondent maintained that claim 1 as a whole was not entitled to priority because the priority application did not disclose water-in-oil emulsions having an aqueous phase content of more than 90%, and hence could not be relied upon to support the feature of "at least 60%" in claim 1.

2.4 It is therefore to be decided whether priority, in particular a partial priority, can be acknowledged for the subject-matter disclosed in the priority document.

2.5 In G 1/15 the Enlarged Board of Appeal affirmed the concept of partial priority by answering the questions of law referred to it as follows:

"Under the EPC, entitlement to partial priority may not be refused for a claim encompassing alternative subject-matter by virtue of one or more generic expressions or otherwise (generic "OR"-claim) provided that said alternative subject-matter has been disclosed for the first time, directly, or at least implicitly, unambiguously and in an enabling manner in the priority document. No other substantive conditions or limitations apply in this respect." (see the order of the decision).

2.6 The variation of the claim features, such as the percentage of the fat phase and the type of structuring agent, generates a considerable number of alternative embodiments for the low fat confectionery product of claim 1, alternative subject-matter to quote G 1/15.
Thus, claim 1 is considered to be a generic "OR"-claim and can therefore enjoy partial priority for subject-matter disclosed for the first time in the priority document.

2.7 Thus, the subject-matter of claim 1 is entitled to partial priority as of 31 August 2005 for the embodiments disclosed in the priority document, namely those embodiments wherein the aqueous phase represents "60-90%", while the remaining part of the claim, that is to say, the embodiments wherein the water-in-oil emulsion has an aqueous phase content higher than 90%, does not enjoy priority and therefore its valid date is the filing date of 31 August 2006.

3. 

Novelty

3.1 The respondent's novelty attack against claim 1 was based on the assumption that claim 1 as a whole was not entitled to priority. In that case, the disclosure of examples 4 to 7 of D12, i.e. the priority document itself, would anticipate the subject-matter of claim 1.

3.2 As discussed above, the subject-matter of claim 1 does have a valid priority date for the water-in-oil emulsions wherein the aqueous phase is 60 to 90%, that is to say for the range embracing the examples of D12 cited by the respondent. In other words, insofar as the disclosure of D12 gives rise to a valid partial priority for the subject-matter of claim 1, its disclosure cannot be used to question the novelty of claim 1.

3.3 For these reasons the subject-matter of claim 1 is novel over D12.
4. **Inventive step**

4.1 The invention relates to confectionery products with low fat or very low fat contents (paragraph [0001]). The patent aims to provide such products having both a rich cocoa flavour mimicking the flavour of regular chocolates, and a mouthfeel mimicking the texture of regular chocolates, in particular leading to similar melting, firmness and snapping characteristics (paragraph [0009]).

4.2 **Closest prior art**

4.2.1 The appellant saw the disclosure of D7 as representing the closest prior art. The respondent, on the other hand, considered that any of D7, D2 or D9 could be used as the closest prior art.

4.2.2 According to the established jurisprudence of the boards of appeal, the closest prior art for assessing inventive step is a prior art document disclosing subject-matter conceived for the same purpose or aiming at the same objective and having the most relevant technical features in common.

- This is the case for the disclosure of D7 that, like the patent in suit, aims to provide low fat emulsions having a good stability upon spreading, oral mouthfeel and full fat-like sensation (see page 1, lines 35 to 37) as discussed in detail below.

- D2 is directed to low-calorie filling compositions provided with a coating layer. The filling composition comprises a fat-continuous emulsion with a fat content of 5-50 wt.%, and a remainder of
95-50 wt.%, wherein the water content of the remainder is 10-60 wt.%, and the remainder further consists of 90-40 wt.% of at least one thickener other than gelatine and sweetener (claim 1). The filling is to be encapsulated in a hard chocolate shell. A person skilled in the art seeking to mimic the flavour and texture of regular chocolate would not consider the teaching of D2 relating to a filling as a suitable starting point.

Furthermore, the process of preparing the low-calorie filling of D2 is discussed in D7, originating in part from the same inventors, as being rather complicated and not fully satisfactory. In particular, it is said that the obtained emulsions have an acceptable product performance, but this performance does not yet meet the high quality-standards required by the confectionery manufacturers (see D7, page 1, lines 12 to 33). In the board's view, this statement is another reason for not considering D2 as the closest prior art.

- Lastly, D9 concerns the technical field of margarines and edible spreads (see abstract). It discloses in claim 1 an edible fat composition comprising a fat and a water phase, wherein the fat phase comprises a cocoa based lipid selected from the group consisting of cocoa butter, chocolate butter and derivatives thereof, and the composition is spreadable at temperatures in the range of 0-29°C and is in the form of a water-in-oil emulsion. Although the total lipid content in D9 ranges from 10 to 90% (page 7, lines 5 to 8), D9 is not really directed to low-calorie/low-fat products. In fact, all examples in D9 have a total
fat content well above the maximum amount allowed by present claim 1 (cf. "at most 20%") in particular, example 4, relied upon by the respondent, has a total fat content of 42.6 wt.%. Thus, D9 does not qualify as the closest prior art either.

4.2.3 It follows that D7 is the most appropriate starting point for the assessment of inventive step.

4.2.4 D7 discloses on page 2, lines 1 to 22 a process for preparing a water-in-oil emulsion comprising the steps of:

(1) forming a water-continuous fat emulsion containing 10-30 wt.% of fat, 5-57% wt.% of water, 13-85 wt.% of remainder being at least a compound from the group including inter alia a thickener, preferably a non-gelling thickener, by mixing the components at a temperature above the melting point of the fat;

(2) cooling the emulsion, using a shear of 30-1500 s\(^{-1}\), applying a residence time of less than two minutes, while phase inversion occurs.

4.2.5 It was agreed that the embodiment of D7 coming closest to the claimed subject-matter was example I. This example discloses the preparation of a low-calorie filing composition which is a water-in-oil emulsion (20 wt.% fat phase and 80 wt.% aqueous phase). The emulsion includes Litesse\textsuperscript{®} (polydextrose), a polysaccharide which is used as non-gelling thickener (D7, page 5, lines 26 to 27).
4.2.6 The emulsion of example I of D7 does not contain cocoa particles. In this context, D7 merely contains the following statement (passage bridging pages 4 and 5):

"Also solids of particular matter with a particle size between 0.1-200 µm, preferably 1-25 µm can be incorporated in our filings. Examples being: cocoa powder, TiO₂, colorants and opacifiers."

It is therefore not apparent from D7 into which phase the solid particles, in particular cocoa particles, should be incorporated.

4.3 Problem to be solved and its solution

4.3.1 According to the appellant, the technical problem to be solved by the patent in view of D7 was the provision of a low-fat confectionery product with a firm structure different from the products described in D7.

4.3.2 This problem is solved by the claimed water-in-oil emulsions which differ from those of D7 essentially by the presence of cocoa particles dispersed in the fat phase and by the use of a structuring agent that allows gelation of water droplets.

4.3.3 While the emulsions of D7 are in the form of a filling or a spread, that is to say a soft texture, the claimed emulsions have a firm structure provided both by fat crystals that form a continuous network, and by the (water) droplets structure that acts as a load to reinforce the fat phase (paragraph [0023] of the patent).

4.3.4 This was not disputed by the respondent. It too had prepared water-in-oil emulsions according to claim
and concluded that "the samples with more than 8% [fat] had a surprisingly firm structure (albeit at 5°C) and a pleasant melting sensation in the mouth" (D20, page 7, third paragraph from the bottom, emphasis by the board).

4.3.5 Although one may concede that this effect is less distinct for lower levels of fat, the board sees no reason to doubt this effect in general. Therefore, the technical problem identified by the appellant is indeed the objective technical problem, which is solved by the features of claim 1.

4.4 Obviousness

4.4.1 It remains to be decided whether or not the claimed solution was obvious in view of the cited prior art. Taking into account that D7 already suggests in the paragraph bridging pages 4 and 5 the use of cocoa powder as a possible ingredient of the confectionery fillings, the relevant question is whether the skilled person would have added the cocoa powder into the fat phase and would have modified the process of D7 so that a firm structure would be obtained.

4.4.2 D7 itself gives no hint to the claimed solution. D7 is silent about any desired firmness of the obtained emulsions. It aims to provide low-fat confectionery fillings and low-fat spread compositions having in particular a better stability upon spreading (page 1, line 35 to page 2, line 2). In fact, although the thickeners used in D7 overlap to a certain extent with the structuring agents used in the patent in suit, they are used in a different way. While in the patent the structuring agent is used to allow gelation of water droplets to obtain a firm structure (paragraph [0014])
of the patent), the preferred thickeners of D7 are non-gelling thickeners (see page 5, lines 26 to 33).

4.4.3 Moreover D7 gives no hint to add the cocoa particles to the fat phase of the emulsion; it is completely silent about where the cocoa particles are to be added. Insofar as D7 aims to improve the process of preparing the confectionery filling compositions disclosed in D2 and in that document the optional cocoa particles are a bulking agent added to the water phase, the assumption is that the optional cocoa particles are added to the water phase in D7 too.

4.4.4 The board cannot accept the argument of the respondent that, starting from D7, the problem to be solved was merely the provision of a chocolate-flavoured emulsion, and that it would be obvious from D7 itself or from common general knowledge to incorporate cocoa powder. This approach ignores the effect resulting, as explained above, from the interplay of the fat crystals and the (water) droplets structure. The invention is not merely about adding cocoa particles to "the emulsion". It is about adding the cocoa particles to the fat phase of the emulsion while, at the same time, structuring the aqueous phase (droplets), which provides further support. Nothing of this is apparent from D7 or any documented common general knowledge.

4.4.5 Also the combination of D7 with D2 (erroneously referred to as D5 by the respondent in its reply to the statement setting out the grounds of appeal) does not result in the claimed emulsions. As explained above, optional bulking agents, such as cocoa particles, are added to the aqueous phase in D2. This would not result in a product as claimed.
4.4.6 Although, as set out above, D2 and D9 are not suitable starting points for the assessment of inventive step, similar considerations would apply when starting from these documents as the closest prior art. The argumentation essentially fails for the same reasons given above when starting from D7, namely that there is no hint to the combined use of cocoa particles dispersed in the fat phase and the use of a structuring agent that allows gelation of water droplets to obtain a firm structure.

4.5 In view of the above, the board concludes that it would not have been obvious to the skilled person to arrive at the subject-matter of claim 1. By the same token, the subject-matter of dependent claim 2 and the subject-matter of claim 3 which relates to a process for manufacturing the products of claims 1 and 2 also involves an inventive step.
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 with the order to maintain the patent on the basis of the following documents:

   - claims 1 to 3, filed as third auxiliary request on 20 February 2014 (sole request);

   - description pages 2 to 6 as filed during oral proceedings before the board on 1 August 2017.

The Registrar: The Chairman:

M. Cañueto Carbajo W. Sieber

Decision electronically authenticated