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Datasheet for the decision of 16 June 2015

Case Number: T 2265/13 - 3.3.09

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Title of invention:
Filled cheese product

Applicant:
Friesland Brands B.V.

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
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Decisions cited:

Catchword:

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Case Number: T 2265/13 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 16 June 2015

Appellant: (Applicant)	Friesland Brands B.V. Stationsplein 4 3818 LE Amersfoort (NL)
Representative:	Jansen, Cornelis Marinus V.O. Johan de Wittlaan 7 2517 JR Den Haag (NL)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 17 May 2013 refusing European patent application No. 06077269.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	N. Perakis
Members:	J. Jardón Álvarez
	E. Kossonakou

Summary of Facts and Submissions

I. This appeal lies from the decision of the examining division, posted on 17 May 2013, refusing European patent application No. 06 077 269.6.

II. The decision was based on three sets of claims, namely a main request filed with letter dated 6 August 2008 and two auxiliary requests filed with letter dated 26 March 2013.

The examining division found that the subject-matter of the claims of the main request was unclear due to the use of the wording "semi-hard" and "hard" [cheese] and that the subject-matter of the claims of the first and second auxiliary requests did not involve an inventive step in view of the teaching of D1 (US2003/0129281 A1) alone or in combination with the teaching of D5 (US 6,406,731 B1).

III. On 9 July 2013 the applicant (in the following: the appellant) filed a notice of appeal and on the same day paid the appeal fee. The statement setting out the grounds of appeal was filed on 27 September 2013. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of one of the requests before the examining division.

IV. On 18 December 2014 the board dispatched a summons to oral proceedings. In the attached communication the board indicated the issues to be discussed during the oral proceedings and its preliminary view, namely that it agreed with the findings in the appealed decision.

V. On 17 April 2015 the appellant filed further auxiliary requests and a copy of the "CODEX GENERAL STANDARD FOR

CHEESE", CODEX STAN 283-1978 (7 pages), a document cited on page 2, lines 3-4 of the application.

VI. On 16 June 2015 oral proceedings were held before the board. During the oral proceedings the appellant withdrew all its requests on file and submitted, as its sole request, an amended set of claims (new main request) and a description adapted thereto.

Independent claims 1 and 9 of this request read as follows:

"1. A method for preparing a shaped and filled cheese product, comprising coextruding a first edible phase and a second edible phase, wherein the second phase (filling) is completely enclosed by the first phase (covering), which first phase comprises semi-hard and/or hard natural cheese, wherein a semi-hard cheese has a moisture content of 42 to 55 wt.%, and a hard cheese has a moisture content of less than 42 wt.%, wherein the coextruded phases are compressed with the aid of a diaphragm valve, such that the first phase completely encloses the second phase and a discrete product is formed, and wherein, during the extrusion, at least the first phase has a temperature of maximally 7.0°C, wherein the pH of the second phase is between 2 and 6, and wherein the water activity of the first phase and of the second phase is between 0.85 and 0.98."

"9. An extruded shaped natural cheese product obtainable by means of a method according to any one of the preceding claims, comprising a covering and a filling, wherein the covering comprises a semi-hard and/or hard natural cheese, wherein a semi-hard cheese has a moisture content of 42 to 55 wt.%, and a hard cheese has a moisture content of less than 42 wt.%, the

covering completely encloses the filling, and the outer surface of the covering has a smoothly flowing shape at least at the ends of the product."

Claims 2 to 8 and 10 to 16 are dependent claims.

VII. The arguments presented by the appellant in its written submissions and at the oral proceedings may be summarised as follows:

- The closest prior-art document, D1, disclosed a method comprising coextruding a first cheese phase and a second edible phase and cutting the extruded product with a cutter, thus resulting in a product having its filing exposed to the environment. Contrary to the view of the examining division, D1 did not teach complete enclosure of the filling (encrusting). The products of D1 had the drawback that the second phase could easily egress from the product. The technical problem of the invention was the provision of a cheese product where the covering completely enclosed the filling.

- This problem was solved by the method with the features of claim 1 wherein the product coming from the extruder was divided into pieces using a diaphragm valve and under extruding conditions which ensured that no leaking of the product could occur. The products thus obtained were smooth and without undesired irregularities.

- The claimed method was not suggested by the cited documents. The examining division had read much more into D1 than it really disclosed. On the one hand D1 was silent about encrusting and on the other hand encrusting was not derivable from D1,

since it did not disclose an extruder with the specific diaphragm valve now used. Moreover, in view of the properties of the semi-hard or hard natural cheese the skilled person would not have used it as covering. D5 was in an entirely different field and gave no hint in the direction of the claimed method or of the advantageous properties of the obtained products.

VIII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 16 according to the main request as filed on 16 June 2015 during the oral proceedings.

Reasons for the Decision

1. Amendments

1.1 Claim 1 of the main request is directed to the method for preparing a shaped and filled cheese product with the aid of a diaphragm valve disclosed in claim 6 as filed, wherein:

- the semi-hard and/or hard cheese has been defined as a "natural" cheese in opposition to "processed" cheese (support: for instance, on page 3, lines 8 and 25 of the description as filed), and the moisture content as being "42 to 55 wt.%" for the semi-hard cheese and "less than 42 wt.%" for the hard cheese (support in both cases: page 9, lines 6 to 11); and

- the extruding conditions have been specified by including the most preferred extrusion temperature

of the first phase, namely "maximally 7.0°C" (support: page 8, line 12); and the typical values for the pH of the second phase, namely "between 2 and 6" (support: page 13, line 1), and

- the water activity of both product phases has been defined on the basis of their typical values, namely "between 0.85 and 0.98" (support: page 12, lines 4 to 5).

1.2 Claim 9 (a product-by-process claim) is based on claim 12 as filed, wherein the cheese product has been defined as in claim 1 above.

1.3 Dependent claims 2 to 8 are respectively supported by claims 2, 4, 5 and 7 to 10 of the application as filed, and dependent claims 10 to 16 find support respectively in claims 13 to 18 and 20 of the application as filed.

1.4 Thus, the amended claims are disclosed in the application as filed and fulfil the requirements of Article 123(2) EPC.

2. Clarity

The above amendment specifying the moisture content of the "semi-hard and "hard" cheese also overcomes the clarity objection made by the examining division concerning the then pending main request. The claims fulfil the requirements of Article 84 EPC.

3. Inventive step

3.1 The application relates to a method for preparing a shaped and filled cheese product in which the filling is completely enclosed by a covering comprising semi-

hard and/or hard natural cheese (claims 1 to 8) and to the cheese product obtainable by this method (claims 9 to 16).

3.2 Closest prior art

3.2.1 The board agrees with the examining division and the appellant that D1, which is directed to cheese products having at least two phases wherein the first phase is a cheese phase and the second phase is a second edible phase and to a method for their manufacture, represents the closest prior art.

3.2.2 Suitable cheeses for the cheese phase in D1 include processed cheeses, uncured natural cheeses, and cured natural cheeses such as mozzarella, Cheddar, cream cheese, Havarti, Colby, Monterey Jack, and the like (see [0023], lines 7 to 12). The second phase is a cheese different from the first phase, vegetables, meats, fruits, nuts, or the like and mixtures thereof (see paragraph [0023], lines 13 to 14).

3.2.3 The method for producing the cheese product as claimed in claim 16 comprises:

(1) providing a cheese phase in the form of cheese chucks or cheese shreds at a temperature of about 45 to 70°F (7.2 to 21.1°C), wherein the cheese phase has a water activity of about 0.85 to about 0.95 and pH of about 4.5 to about 6;

(2) providing a second edible phase having a water activity of about 0.85 to about 0.95 and pH of about 4.5 to 6;

(3) coextruding both phases under low to moderate shear conditions without the use of adhesive or heat; and

(4) cutting the extruded product to the desired length.

3.2.4 Depending on the extruder die, the cheese product can be produced in different shapes and configurations (see figure 2 and paragraph [0032]). In most of the embodiments of D1 the first phase encloses the second phase in a longitudinal direction, the second phase not being completely enclosed within the first phase (see Figures 2A to 2E and 2G to 2L). Only the embodiment of figure 2F shows a cheese product wherein the edible phase appears to be enclosed by the cheese phase. There is, however, no working example in D1 for the preparation of a product having the configuration of the figure 2F, and during the oral proceedings, the appellant convincingly argued that such a product could not be prepared by the process of D1 using a semi-hard and/or hard natural cheese as the material of the cheese phase and the extruder disclosed in column 4, lines 3 to 4, namely the Cornucopia™ KN400 available from Rheon U.S.A. (Hunterville, N.C.), which is an extruder not comprising a diaphragm valve.

3.3 Problem and solution

3.3.1 According to the appellant the problem to be solved by the application in view of this prior art can be seen in the provision of a filled cheese product having a smooth surface where the covering comprises a semi-hard and/or hard natural cheese and where the covering completely encloses the filling so that egress of the filling is prevented (see application: page 3, lines 11 to 14 and page 5, lines 12 to 15).

3.3.2 As a solution to this problem, the application proposes the cheese products of claim 9 in which the filling is completely enclosed by a covering comprising a semi-hard or hard natural cheese and which are made by coextrusion with the aid of a diaphragm valve under the process conditions specified in the method of claim 1, namely a temperature of maximally 7.0°C during the extrusion of the cheese phase, a pH of the second phase between 2 and 6 and a water activity of both phases of between 0.86 and 0.98.

3.3.3 The application contains evidence that by using a covering comprising a semi-hard or hard natural cheese and the claimed processing conditions, in particular a temperature not exceeding 7.0°C, a smooth cheese product is obtained (see examples). Regarding the criticality of the temperature, at higher temperatures the enclosure of the second phase at the end face of the extruded product is less adequate, so that a leak can occur in the covering. In that case cracks can be present which form leakage spots through which the enclosed phase can flow from the product, particularly if this phase is liquid (see page 8, lines 21 to 27 of the application).

3.4 Non-obviousness

3.4.1 It remains to be decided whether, in view of the available prior-art documents, it would be obvious for the skilled person to solve the above problem by the means claimed.

3.4.2 D1 itself does not provide any hint pointing to the claimed solution. As indicated above, the method of D1 does not disclose the use of a diaphragm valve for the

extruding step. Moreover, the feed temperatures used are above the temperatures now claimed.

3.4.3 The skilled person would not find the required motivation in D5 either. D5 discloses the extrusion of an uncooked filled bread dough using an extruder equipped with a diaphragm valve with substantially no leakage of the filling (see column 6, lines 6 to 18). However, D5 deals with a filled yeast-bread product whose material structure is different from that of a cheese product whose covering comprises hard or semi-hard natural cheese. Thus, although D5 undeniably discloses that the combination of a diaphragm valve and an extruder can be used for the preparation of an enclosed product with a material structure similar to that of a bread dough, it does not give the skilled person any hint to use this combination of a diaphragm valve and and an extruder for the manufacture of a cheese product with a semi-hard or hard natural cheese for the covering and even less to use the specific process conditions claimed.

3.4.4 In summary, there is no hint in the available prior art that would lead to the finding that by using a semi-hard or hard natural cheese for the covering phase of a cheese product and by controlling the process conditions -in particular the extruding temperature of the covering phase- it would be possible to completely enclose the filling phase and to obtain a smooth cheese product without leakage of the filling.

3.5 The examining division denied inventive step essentially because the only distinguishing feature of the then pending claims over the disclosure of D1 was the use of a diaphragm valve to obtain an encrusted

product and this feature would be obvious to the skilled person.

This argument no longer applies to the claims now under consideration, which include further features that distinguish the claimed subject-matter from the disclosure of D1 (see 3.3.2 above).

3.6 For these reasons, the board considers that the subject-matter of independent claims 1 and 9 and, by the same token, of dependent claims 2 to 8 and 10 to 16 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 examining division with the order to grant a patent on the basis of:

   - claims 1 to 16 of the new main request filed on 16 June 2015 at the oral proceedings before the board,

   - description pages 1 to 20 filed on 16 June 2015 at the oral proceedings before the board, and

   - figures 1 to 4 as originally filed.

The Registrar: The Chairman:

M. Cañueto Carbajo N. Perakis

Decision electronically authenticated