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D E C I S I O N
of 10 December 2001

Case Number: T 0566/99 - 3.2.4

Application Number: 93106562.7

Publication Number: 0567125

IPC: A22C 13/00

Language of the proceedings: EN

Title of invention:
Pre-cooked food product package

Patentee:
VISKASE CORPORATION

Opponent:
W.R. Grace & Co.-Conn.
Gunze Ltd. & Gunze Kobunshi Corporation

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty (yes)"
"Inventive step (no)"

Decisions cited:
T 0666/97

Catchword:
-

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Case Number: T 0566/99 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 10 December 2001

Appellant: (Proprietor of the patent)
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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 26 February 1999 revoking European patent No. 0 567 125 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: C. A. J. Andries
Members: C. D. A. Scheibling
H. Preglau

Summary of Facts and Submissions

I. European patent No. 0 567 125 was revoked by the opposition division's decision dispatched on 26 February 1999.

On 7 May 1999 the appellant (proprietor) filed an appeal against this decision and paid the appeal fee. The statement of grounds was filed on 8 July 1999.

II. The following documents played a role in the appeal proceedings:

D1: EP-A-0 319 732 (family member of US-A-4 784 863)

D3: US-A-4 888 223

D4: US-A-4 352 702

D9: US-A-4 411 919.

III. Oral proceedings took place on 10 December 2001. During these proceedings the appellant filed a further (third) auxiliary request.

IV. Claim 1 of the main request (as granted) reads:

"A cook-in film comprising an ethylene vinyl acetate-containing layer having a corona treated surface adapted for direct meat contact characterized in that said surface is irradiated."

Claim 1 of the first auxiliary request (filed with letter of 7 November 2001) reads:

"A cook-in film comprising an ethylene vinyl acetate-containing layer having a corona treated surface adapted for direct meat contact characterized in that said surface is irradiated and that the wetting tension of said surface is at least about 36 dyne/cm, particularly from about 36 dyne/cm to about 50 dyne/cm."

Claim 1 of the second auxiliary request (filed with letter of 7 November 2001) reads:

"A cook-in film comprising an ethylene vinyl acetate-containing layer having a corona treated surface adapted for direct meat contact characterized in that said surface is irradiated, said film being irradiated at a dosage of at least 2 MR; and that irradiated starch particles are uniformly dispersed across said surface."

Claim 1 of the third auxiliary request (filed during the oral proceedings) reads:

"Use of a cook-in film comprising an ethylene vinyl acetate-containing layer having a corona treated surface adapted for direct meat contact characterized in that said surface is irradiated, said film being irradiated at a dosage of at least 2 MR; and that irradiated starch particles are uniformly dispersed across said surface, for cooking a meat product in an aqueous medium."

V. During the appeal proceedings respondent 01 (opponent 01) and respondent 02 (opponent 02) argued that the independent claims 1 of all requests on file lacked novelty or inventive step having regard to the above

cited prior art.

The appellant countered the respondent's arguments.

VI. The main request of the appellant is to set aside the decision under appeal and to maintain the patent as granted; his first auxiliary request is to set aside the decision under appeal and to maintain the patent on the basis of the new claims 1 to 16 of the auxiliary request I as filed with letter of 7 November 2001; his second auxiliary request is to set aside the decision under appeal and to maintain the patent on the basis of the new claims 1 to 15 of auxiliary request II as filed with letter of 7 November 2001; his third auxiliary request is to set aside the decision under appeal and to maintain the patent on the basis of the new claims 1 to 13 filed during the oral proceedings.

VII. Both respondents request that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Interpretation of claims 1 of the main, first and second auxiliary requests*

The object of the independent claims 1 is a product. A product has to be defined by the features that manifest in/on the product itself. That means that manipulations taking place during product manufacture but not resulting in product features are of no relevance to the definition of the claimed product (see T 666/97, section 3.3).

In the present case the treatments referred to as "corona treatment" and "irradiation" mainly result respectively in an oxidation of the surface of the film and in inducing cross-linking between the molecules of the film material. However "irradiation" also results in surface treatment, i.e. oxidation of the film surface (see D9, column 3, lines 37 to 55), so that it cannot be detected in the product as such, which part of the surface treatment is due to "irradiation" and which part is due to "corona treatment".

Since solely the facts that a surface is oxidated and that a layer has cross-linked molecules can be detected on the product itself, but not the way these effects are generated, a corona treated and irradiated film in the meaning of the patent in suit is a film exhibiting a surface oxidation and cross-linked molecules.

Main request

3. *Closest prior art*

The board considers that D9 is the closest prior art document.

The appellant argued that D9 is not precise enough to represent the closest prior art document.

However, none of the documents D1, D3 or D4 discloses to subject a film to both oxidation and cross-linking, whereas D9 proposes to perform a treatment on a cook-in film providing both oxidation and cross-linking. Furthermore, the board cannot find any vagueness in the disclosure of D9 that could prevent a skilled person of using the teaching thereof.

4. *Novelty*

4.1 The board considers that a very strict approach should be followed when considering the novelty requirement.

4.2 Therefore, the board cannot agree with the respondents when they consider D1, D4 or D9 to be novelty destroying.

Although, according to D1 "at least the dispersed starch particle-containing ethylene vinyl acetate inner layer is irradiated at dosage of at least 2 MR" (page 3, lines 11, 12), and thus, an oxidation due to the presence of air in the voids between the starch particles could be expected, D1 does not give a skilled person any indication that oxidation does effectively occur.

According to D4 the "tube" is irradiated in absence of air, thus no oxidation occurs. Anyway no oxidation is indicated.

In D9, the cook-in film to be subjected to energetic radiation in presence of oxygen is said to be a polymeric olefin. Ethylene vinyl acetate (EVA) only being one out of three representative examples of polymeric olefines given in the description, column 2, lines 52 to 54.

4.3 Thus, the board considers that novelty is given.

5. *Inventive step*

5.1 D9 discloses a cook-in film comprising a polymeric olefin layer having a surface adapted for direct meat

contact having been subjected to an energetic radiation surface treatment in the presence of oxygen sufficient to cause the inner surface to adhere to the meat product during cook-in (see claim 1).

Energetic radiation in presence of oxygen results in cross-linking and in that the surface will be oxidized (column 3, lines 3 to 13 and 40 to 44).

5.2 Thus, the cook-in film according to claim 1 of the main request, differs from the cook-in film known from D9 in that:

the layer in meat contact is an ethylene vinyl acetate containing layer.

5.3 Thus, the problem to be solved is to select a suitable material to form the inner layer that is in meat contact.

5.4 However, in the description of D9, column 2, lines 52 to 54, ethylene vinyl acetate is one of the three given examples of suitable polymeric olefines.

5.5 Therefore, the use of ethylene vinyl acetate in an inner layer in a cook-in film according to claim 1 of D9 is obvious to a person skilled in the art and consequently, the subject-matter of claim 1 of the main request does not involve an inventive step as required by Article 56 EPC.

First auxiliary request

6. *Amendments*

Claim 1 of the first auxiliary request is derived from a combination of claims 1 and 8 as granted. The board considers that this amendment is unobjectionable.

The respondents didn't object to the amendment either.

7. *Closest prior art document*

In this case, the board considers that D3 is the closest prior art document.

D3 discloses a cook-in film (see column 9, lines 4 and 5: heated at 80°C for 2 hours) comprising a polyolefin resin layer having a corona treated surface adapted for direct meat contact and a wetting tension of said surface of at least about 37 dyne/cm, particularly from about 40 dyne/cm to about 50 dyne/cm (see column 6, lines 51 to 56, particularly lines 55 and 56).

8. *Novelty and inventive step*

8.1 Since the scope of claim 1 of the first auxiliary request has been narrowed in comparison with the scope of claim 1 of the main request by adding further features and since the subject-matter of claim 1 of the main request was found to be novel, the subject-matter of claim 1 of the auxiliary request is likewise novel (see also section 4, above).

8.2 The cook-in film according to claim 1 of the first auxiliary request differs from that known from D3 in that:

said inner layer is an ethylene vinyl acetate containing layer and the film itself is cross-linked

(irradiated).

8.3 Thus the problem to be solved is to select a suitable material, improve adhesion, avoid cook-out and delamination of the film.

8.4 D3 already indicates ethylene vinyl acetate as specific example of a suitable material (column 2, lines 11, 12 and 21 to 24), therefore it does not involve an inventive step to select this material.

Although D3 indicates in column 4, lines 48 to 51 that the property of achieving close contact with the processed meat increases with a rise in the intensity of corona discharge treatment, the board cannot agree with the appellant when he states that a skilled person would in view of that information have no need to investigate further solutions, since D3 teaches to simply rise the intensity to improve adhesion.

As a matter of fact, a skilled person knows from D9 (column 5, lines 1 to 4) that excessive corona treatment can result in discolouring the film and that therefore intensity cannot be raised at will.

Furthermore, D9 teaches that irradiation is commonly used to cross-link thermoplastic polymers, that this treatment will render the surface adherable to contained food products and that the adhering surface treatment may advantageously be accomplished simultaneously with cross-linking of the film overall (column 3, lines 3 to 16).

Therefore, a person skilled in the art would at least try irradiation in order to solve the above mentioned

problem, because it not only improves adherence but also, due to cross-linking effect, would overcome the risk of delamination of the film.

8.5 The appellant also objected that the reference made in D3 concerning the values given for the wetting tension (column 5, lines 2 to 5) are not specifically related to an EVA layer. This is true, nevertheless D3 makes a general statement applicable to polyolefin resin layers, that means that said statement applies to all polyolefin resin layers and thus also to an EVA layer, since EVA is cited as suitable polyolefin resin layer in the description (column 2, lines 11, 12 and 21 to 24).

8.6 Consequently, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step as required by Article 56 EPC.

Second and third auxiliary request

9. *Amendments*

9.1 Claim 1 of the second auxiliary request is derived from a combination of claims 1, 2 and 3 as granted. The board considers that these amendments are unobjectionable.

The respondents did not object to the amendments either.

9.2 Claim 1 of the third auxiliary request is derived from independent claim 15 of the second auxiliary request. The board considers that this amendment is unobjectionable.

The respondent 01 objected to the admissibility of this new claim at this stage of the proceedings.

However, since this claim was already on file being part of the second auxiliary request, the raised objection cannot be accepted.

10. *Closest prior art document*

The board considers that D9 is the closest prior art document.

D9 discloses a cook-in film comprising a polymeric olefin layer having an oxidized surface adapted for direct meat contact, said film being cross-linked by irradiation (claim 1; column 3, lines 3 to 13 and 40 to 44).

Novelty and inventive step

10.1 The scope of claim 1 of the second auxiliary request has been narrowed in comparison with the scope of claim 1 of the main request by adding further features, whereas claim 1 of the third auxiliary request relates to the use of a cook-in film according to claim 1 of the second auxiliary request. Thus, since the subject-matter of claim 1 of the main request was found to be novel, the subject-matter of claim 1 of the second and third auxiliary requests are likewise novel (see also section 4, above).

10.2 The cook-in film according to claim 1 of the second auxiliary request differs from that known from D9 in that:

said inner layer is an ethylene vinyl acetate containing layer and that irradiated starch particles are uniformly dispersed across said surface.

10.3 That claim 1 additionally foresees a dosage of at least 2 MR is not a feature that manifests in/on the product itself and thus cannot distinguish said product from the prior art. Nevertheless, it is pointed out that D9 discloses said feature in an example of irradiation treatment of a cook-in film where a dosage of 8 to 10 MR is used (see column 5, line 1).

10.4 Thus the problem to be solved is to select a suitable material, to improve adhesion and to avoid fat-out.

10.5 However, in the description of D9, column 2, lines 52 to 54, ethylene vinyl acetate (EVA) is one of the three given examples of suitable polymeric olefines, therefore it does not involve an inventive step to select this specific material.

Furthermore, a person skilled in the art knows from D1 that "when irradiated, the EVA layer provides limited meat adhesion but fat-out is significant" see page 4, line 3, but also that "... it appears that the irradiated starch particle-containing ethylene vinyl acetate surface is unique in its ability to provide good meat adhesion and little fat-out ..." see page 4, lines 9, 10.

Therefore, it would be obvious for a skilled person to uniformly disperse irradiated starch particles across the surface to improve adhesion and reduce fat-out.

10.6 Consequently, the subject-matter of claim 1 of the

second auxiliary request does not involve an inventive step as required by Article 56 EPC.

10.7 Claim 1 of the third auxiliary request relates to the use of a cook-in film. The appellant argued that this claim is a process claim and that, therefore, features i.e. manipulations taking place during product manufacture, even if they do not result in product features, are to be considered.

The board cannot follow this approach. A process claim should define the steps of the claimed process. The sole process step (feature) present in claim 1 and defining said use is that said film is used for cooking a meat product in an aqueous medium. All other features relate to the definition of the film itself and not to the definition of the use.

Furthermore, the expression "cook-in film" already implies that the film must be suitable for cooking in an aqueous medium at 70-80°C for 4-6 hours (see definition of "cook-in" in D1, page 3, lines 30 to 32; document to which the description of the patent in suit (page 2, lines 37 to 46) explicitly refers as describing a cook-in film) and therefore the expression "cook-in film" implicitly includes it's use as claimed.

Consequently, since the cook-in film as defined in claim 1 of the third auxiliary request (which is the cook-in film according to claim 1 of the second auxiliary request) does not involve an inventive step (see sections 10.2 to 10.6) the use thereof does not involve an inventive step either.

11. Thus, neither the subject matter of claim 1 of the main

request, nor that of the first, second and third requests involves an inventive step as requested by Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Magouliotis C. Andries