

BESCHWERDEKAMMERN
DES EUROPÄISCHEN
PATENTAMTS

BOARDS OF APPEAL OF
THE EUROPEAN PATENT
OFFICE

CHAMBRES DE RECOURS
DE L'OFFICE EUROPEEN
DES BREVETS

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen

D E C I S I O N
of 18 September 1997

Case Number: T 1072/93 - 3.3.3

Application Number: 86900396.2

Publication Number: 0202328

IPC: B 32B 27/30

Language of the proceedings: EN

Title of invention:
Irradiated multilayer film for primal meat packaging

Patentee:
VISKASE CORPORATION

Opponent:
W.R. Grace & Co.
Dixie Union Verpackungen GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 84

Keyword:
"Clarity (no) - claims amended at oral proceedings - a number of adjournments"
"Claims clearly unallowable - no alternative but to decide finally"
"Judicial function of Board precludes too much assistance to either party"

Decisions cited:
-

Catchword:
-



Europäisches
Patentamt

European
Patent Office

Office européen
des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 1072/93 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 18 September 1997

Appellant:
(Proprietor of the patent) VISKASE CORPORATION
6855 West 65th Street
Chicago, Illinois 60638 (US)

Representative:
Eggert, Hans-Gunther, Dr.
Räderscheidtstrasse 1
50935 Köln (DE)

Respondent:
(Opponent 01) W.R. Grace & Co.
1114 Avenue of the Americas
New York, N.Y. 10036 (US)

Representative:
UEXKÜLL & STOLBERG
Patentanwälte
Beselerstrasse 4
22607 Hamburg (DE)

Respondent:
(Opponent 02) Dixie Union Verpackungen GmbH
Römerstrasse 12
78960 Kempten (DE)

Representative:
Rauh, Peter A., Dr.
Vossius & Partner
Postfach 86 07 67
81634 München (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office dated 8 September 1993,
issued in writing on 27 October 1993 revoking
European patent No. 0 202 328 pursuant to
Article 102(1) EPC.

Composition of the Board:

Chairman: C. Gérardin
Members: R. Young
J. A. Stephens-Ofner

Summary of Facts and Submissions

- I. The mention of the grant of European patent No. 0 202 308, entitled "Irradiated multilayer film for primal meat packaging", in respect of European patent application No. 86 900 396.2, corresponding to International Application No. PCT/US85/02352, and claiming a US priority of 3 December 1984 (US 677362) was announced on 3 April 1991 (Bulletin 91/14), on the basis of a set of 18 claims. The independent claims of this set were directed to a heat-shrinkable, multilayer film (Claim 1) and to a process for producing such a multilayer film (Claim 16), respectively.
- II. Two Notices of Opposition were filed, both on 2 January 1992, on the grounds of Article 100(a) EPC, that the subject-matter claimed in the patent in suit did not involve an inventive step. In reply to these Notices of Opposition, the Patentee defended the patent first of all in its form as granted (submission filed on 5 August 1992, with a letter dated 31 July 1992), and then, in preparation for oral proceedings to be held before the Opposition Division, also on the basis of a new set of claims forming an auxiliary request, filed on 25 August 1993 (submission dated 23 August 1993). The latter set was replaced with a further set of claims filed on 1 September 1993 (letter of same date). At the oral proceedings held before the Opposition Division on 8 September 1993, the Patentee presented, following an invitation of the Chairman, a first amended main request together with a first auxiliary request and a second auxiliary request, after which he decided to file a new main request together with a sole auxiliary request (minutes of oral proceedings before the Opposition Division, point 3).

Claim 1 of this sole auxiliary request read as follows:

"A coextruded heat shrinkable, three layer film comprising a first outer layer comprising a first ethylene-vinyl acetate copolymer, a core layer comprising a barrier film formed of a polyvinylidene chloride copolymer containing at least 65 weight percent of polyvinylidene chloride based on the weight of said polyvinylidene chloride copolymer, with the remainder of said polyvinylidene chloride copolymer being selected from the group consisting of vinyl chloride, acrylonitrile, and acrylate esters, and a second outer layer comprising a second ethylene-vinyl acetate copolymer wherein said coextruded three layer film has been biaxially stretched and then irradiated to a dosage level of between $1 \cdot 10^4$ Gy and $4 \cdot 10^4$ Gy (1 and 4 megarads) as the sole irradiation treatment, so as to induce crosslinking."

Claims 2 to 13 were dependent claims directed to elaborations of the film according to Claim 1.

Claim 14, an independent claim, read as follows:

"A process for producing a three layer film according to any one of claims 1 to 13 comprising:

- (a) co-extruding a first outer film layer comprising a first ethylene-vinyl acetate copolymer, a core film layer comprising a barrier film, and a second outer film layer comprising a second ethylene-vinyl acetate copolymer;
- (b) biaxially stretching said film; and

(c) irradiating said film to a dosage level of between $1 \cdot 10^4$ Gy and $4 \cdot 10^4$ Gy (1 and 4 megarads), as the sole irradiation treatment, so as to induce crosslinking."

Claims 15 and 16 were dependent claims directed to elaborations of the process of Claim 14.

III. By a decision taken at the oral proceedings, on the basis inter alia of the set of Claims 1 to 16 forming the sole auxiliary request, and issued in writing on 27 October 1993, the Opposition Division revoked the patent, since it did not meet the requirements of the EPC, in particular Articles 52 and 56.

IV. On 20 December 1993, a Notice of Appeal was filed against the above decision by the Patentee (Appellant), together with payment of the prescribed fee.

With the Statement of Grounds of Appeal, filed on 9 February 1994, the Appellant (Patentee) submitted, as main request, a new, restricted set of Claims 1 to 16, and argued that the appeal was well-founded on the basis of these claims. The set of claims differed from those of the sole auxiliary request underlying the decision under appeal only in that the irradiation dosage level defined in Claims 1 and 14 respectively had been restricted to between $2 \cdot 10^4$ Gy and $3 \cdot 10^4$ Gy (2 and 3 megarads).

V. Following the postponement, because of the sudden illness of the Representative of one of the parties, until 18 September 1997, of oral proceedings previously appointed by the Board for 25 June 1997, the Board issued, on 11 July 1997, a communication in which objection, resulting from the amendments made during

the proceedings and therefore arising from them, was raised against this set of claims, in particular under Article 84 EPC, that certain essential features were missing.

VI. In reply to this communication the Appellant filed, on 18 August 1997, two further sets of claims forming, respectively, Auxiliary Request I (Claims 1 to 16) and Auxiliary Request II (Claims 1 to 15).

Claim 1 of Auxiliary Request II read as follows:

"A coextruded heat shrinkable, three layer film suitable for packaging primal and sub-primal meat cuts and processed meats comprising:

a first outer layer comprising a first ethylene-vinyl acetate copolymer, said first ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 15 weight percent;

a core layer comprising a barrier film formed of a polyvinylidene chloride copolymer containing at least 65 weight percent of polyvinylidene chloride, based on the weight of said polyvinylidene chloride copolymer, with the remainder of said polyvinylidene chloride copolymer being selected from the group consisting of vinyl chloride, acrylonitrile, and acrylate esters, and a second outer layer comprising a second ethylene-vinyl acetate copolymer, said second ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 18 weight percent, based on the weight of said second ethylene-vinyl acetate copolymer,

wherein said coextruded three layer film has been biaxially stretched and then irradiated to a dosage level of between $2 \cdot 10^4$ Gy and $3 \cdot 10^4$ Gy (2 and 3 megarads), as the sole irradiation treatment, so as to induce crosslinking."

Claims 2 to 12 were dependent claims directed to elaborations of the film according to Claim 1. In particular, Claim 5 read as follows:

"Film according to any of claims 1 to 3 wherein said second ethylene-vinyl acetate copolymer is selected from the group consisting of (a) an ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 18 weight percent, based on the weight of said second ethylene-vinyl acetate copolymer, and (b) a blend of at least two ethylene-vinyl acetate copolymers, wherein one of said ethylene-vinyl acetate copolymers has a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 10 to 18 weight percent, based on the weight of said copolymer, and the other ethylene-vinyl acetate copolymer has a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 2 to 10 weight percent, based on the weight of said copolymer."

Claim 13, an independent claim, read as follows:

"A process for producing a three layer film suitable for packaging primal and sub-primal meat cuts and processed meats according to any of claims 1 to 12 comprising:

- (a) coextruding a first outer film layer comprising a first ethylene-vinyl acetate copolymer, said first ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per

minute and a vinyl acetate content of from 9 to 15 weight percent; a core film layer comprising a barrier film formed of a polyvinylidene chloride copolymer containing at least 65 weight percent of polyvinylidene chloride, based on the weight of said polyvinylidene chloride copolymer, with the remainder of said polyvinylidene chloride copolymer being selected from the group consisting of vinyl chloride, acrylonitril, and acrylate esters; and a second outer film layer comprising a second ethylene-vinyl acetate copolymer, said second ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 18 weight percent, based on the weight of said second ethylene-vinyl acetate copolymer,

- (b) biaxially stretching said film; and
- (c) irradiating said film to a dosage level of between $2 \cdot 10^4$ Gy and $3 \cdot 10^4$ Gy (2 and 3 megarads), as the sole irradiation treatment, so as to induce crosslinking."

Claims 14 and 15 were dependent claims directed to elaborations of the process of Claim 13.

VII. Oral proceedings were held before the Board on 18 September 1997.

In his preliminary, provisional remarks at the outset of the proceedings, the Chairman of the Board drew the Appellant's attention to the contents of the communication previously issued by the Board, and in particular informed him that:

- (a) Claims 1 and 14 of the Main Request and Auxiliary Request I were considered to be open to objection at least on the grounds set out in paragraph 1 of the communication issued by the Board, in that they did not contain any reference to the essential features of the first and second outer layers of the film, and were thus likely to be rejected.
- (b) Claims 1 and 13 of Auxiliary Request II were open to objection that certain of the features presented as essential in the description of the patent as granted, in particular on page 3, lines 19 to 29, and page 3, last line to page 4, line 10, appeared only in the newly inserted Claim 5. These features should be incorporated in Claims 1 and 13.
- (c) Claims 1 and 13 of Auxiliary Request II were also open to objection in that the basis of the % vinyl acetate content of the first ethylene-vinyl acetate copolymer was unstated.
- (d) No attempt had been made to summarise the arguments of the parties in relation to the substantive issue of inventive step, because the Board was first of all concerned to have a set of claims which was clear in the sense of Article 84 EPC, upon which to base its decision.

The Representative of the Appellant then indicated that it was no longer his intention to defend the Main Request or Auxiliary Request I, but that the claims of Auxiliary Request II would be relied upon as a new Main Request, subject to a further limitation based on the features of Claim 5.

Having heard the Respondents, who submitted that two further features, namely the overall thickness of the film and the maximum allowable percentage of polyvinylidene chloride in the copolymer of the barrier layer were also essential and should be incorporated in the main claims, the Chairman adjourned the proceedings a number of times to allow the Appellant to prepare and to submit his eventual main request.

VIII. This request of the Appellant, which formed his sole, final request, was a set of Claims 1 to 13, Claim 1 of which reads as follows:

"A coextruded heat shrinkable, three layer film suitable for packaging primal and sub-primal meat cuts and processed meats comprising:

a first outer layer comprising a first ethylene-vinyl acetate copolymer, said first ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 15 weight percent;

a core layer comprising a barrier film formed of a polyvinylidene chloride copolymer containing at least 65 weight percent of polyvinylidene chloride, based on the weight of said polyvinylidene chloride copolymer, with the remainder of said polyvinylidene chloride copolymer being selected from the group consisting of vinyl chloride, acrylonitrile, and acrylate esters; and

a second outer layer comprising a second ethylene-vinyl acetate copolymer, selected from the group consisting of (a) an ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 18 weight percent, based on the weight of said second ethylene-vinyl acetate copolymer, and (b) a blend of at least two ethylene-vinyl acetate copolymers, wherein one of said ethylene-vinyl acetate copolymers has a melt index of

from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 10 to 18 weight percent, based on the weight of said copolymer, and the other ethylene-vinyl acetate copolymer has a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 2 to 10 weight percent, based on the weight of said copolymer.

wherein said coextruded three layer film has a total thickness of from 0.04 mm (1.75 mils) to 0.076 mm (3.0 mils). and been biaxially stretched and then irradiated to a dosage level of between $2 \cdot 10^4$ Gy and $3 \cdot 10^4$ Gy (2 and 3 megarads), as the sole irradiation treatment, so as to induce crosslinking."

Claims 2 to 10 were dependent claims directed to elaborations of the film according to Claim 1.

Claim 11, an independent claim, reads as follows:

"A process for producing a three layer film suitable for packaging primal and sub-primal meat cuts and processed meats according to any of claims 1 to 10 comprising:

- (a) co-extruding a first outer film layer comprising a first ethylene-vinyl acetate copolymer, said first ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 15 weight percent; a core film layer comprising a barrier film formed of a polyvinylidene chloride copolymer containing at least 65 weight percent of polyvinylidene chloride, based on the weight of said polyvinylidene chloride copolymer, with the remainder of said polyvinylidene chloride copolymer being selected from the group consisting of vinyl chloride, acrylonitril, and acrylate

esters; and a second outer film layer comprising a second ethylene-vinyl acetate copolymer, said second ethylene-vinyl acetate copolymer having a melt index of from 0.1 to 1.0 decigram per minute and a vinyl acetate content of from 9 to 18 weight percent, based on the weight of said second ethylene-vinyl acetate copolymer,

- (b) biaxially stretching said film; and
- (c) irradiating said film to a dosage level of between $2 \cdot 10^4$ Gy and $3 \cdot 10^4$ Gy (2 and 3 megarads), as the sole irradiation treatment, so as to induce crosslinking."

Claims 12 and 13 were dependent claims directed to elaborations of the process of Claim 13.

IX. In relation to the allowability under Article 84 of this set of claims, the Appellant argued at the oral proceedings substantially as follows:

- (i) The objections of the Board had been met by incorporating the subject-matter of Claim 5 into Claim 1;
- (ii) The objections of the Respondents to the absence of a specific limitation of thickness of the claimed film had been met by incorporating the subject-matter of Claim 10 into Claim 1;
- (iii) The objection of the Respondents that an upper limit of 90% on the percentage of polyvinylidene chloride in the copolymer of the barrier layer should be incorporated into Claim 1 was badly taken, because the skilled person reading the

patent in suit would appreciate from the description what percentage of polyvinylidene chloride he should use.

- X. The Respondents repeated their conviction that the absence of any upper limit in Claim 1 for the polyvinylidene chloride content of the copolymer of the barrier layer rendered the claim unclear.

After reiterating his opening remarks concerning the passages of description containing references to essential features of the film/process claimed in the patent in suit, and ascertaining that no further observations or amendments were forthcoming on the subject of compliance with Article 84 EPC, the Chairman then invited the parties to present their final requests, and closed the discussion.

- XI. The Appellant requested the grant of a patent on his eventual main request submitted during oral proceedings.

The Respondents requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. The decision is based on the following text of the patent in suit:

Claims: 1 to 13 as finally presented at the oral proceedings before the Board (Section VIII, above).

Description: Pages 2 to 11 of the patent as granted.

3. *Amendments*

No objection was raised by the Respondents against the amended claims under Article 123(2) or 123(3) EPC. Nor does the Board see any reason to raise such an objection of its own motion. Consequently, the amended claims are allowable under Article 123 EPC.

4. *Clarity*

The issue of clarity depends on the essential features of the composition of the three individual layers in the film claimed in Claim 1 and produced according to the process of Claim 11.

- 4.1 As regards the composition of the first outer layer, the description of the patent in suit states, in a sentence beginning on page 3 at line 16, "In accordance with this invention the heat shrinkable multilayer film having a first outer layer comprising a first ethylene-vinyl acetate copolymer, said first ethylene-vinyl acetate copolymer having ... a vinyl acetate content of from 9 to 15 percent, based on the weight of said first ethylene-vinyl acetate copolymer;...".

In independent Claims 1 and 11, however, the phrase "based on the weight of said first ethylene-vinyl acetate copolymer" is missing.

- 4.1.1 This deficiency was referred to in the introductory remarks of the Chairman at the oral proceedings.
- 4.1.2 Consequently, the basis of the percentage by weight of vinyl acetate in the ethylene-vinyl acetate copolymer in Claims 1 and 11 is not clearly defined, and the claim does not meet the requirements of Article 84 EPC.

- 4.2 In connection with the composition of the "second outer layer", in Claim 1, the description, corresponding to Claim 1, of the two alternatives (a) and (b) is in a sentence (page 3, lines 16 to 27) which is immediately followed by a statement, which reads: "The blend (b) of said at least two ethylene-vinyl acetate copolymers has a vinyl acetate content of from 9 to 18 weight percent, ... based on the weight of said copolymers." (page 3, lines 27 to 29). This statement is furthermore repeated in a subsequent passage (page 4, lines 8 to 10).
- 4.2.1 Thus, according to the relevant description, the case (b) is subject to the limitation applying to case (a), namely that the overall content of vinyl acetate is from 9 to 18, and preferably 10 to 15 weight percent, based on the weight of these copolymers. This limitation, although present in Claim 1 of Auxiliary Request II prior to the incorporation of the subject-matter of Claim 5, is missing from the final form of Claim 1. This is because, in incorporating the subject-matter of Claim 5 in Claim 1, the relevant overall limitation was deleted.
- 4.2.2 This deficiency was adverted to in the final remarks of the Chairman, who referred specifically to the relevant passages on page 3 at lines 16 to 31 and page 3, last line to page 4, line 10.
- 4.2.3 Thus, with Claim 1 in its final form in the sole request, the skilled person reading the patent specification as a whole would understand, from the description, that an overall limitation of 9 to 18 weight percent of vinyl acetate is essential in the copolymer of the second outer layer. On reading Claim 1, however, he would find that this limitation is not required.

4.2.4 Thus there is considerable confusion as to the essential features of the composition of this layer, so that the claim, when read in the light of the description, is not clear (Article 84 EPC).

4.3 Whilst the "barrier layer" is defined in Claims 1 and 11 as containing "at least 65 weight percent of polyvinylidene chloride", the description states that, "If the vinylidene chloride content is more than 90 weight percent, the polyvinylidene chloride copolymer is generally not extrudable." (page 3, lines 45 to 53, in particular lines 52 to 53). The film is, however, defined in Claim 1 as being "coextruded", and independent Claim 11 requires the step of coextruding.

4.3.1 This objection was raised by Respondent 02 during the oral proceedings.

4.3.2 In the Board's view, there is a conflict, in the light of this description, between the coextruded character required of the claimed films on the one hand, and the absence of the relevant limitation without which such character is, according to the description, generally unfeasible, on the other.

4.3.3 The argument of the Appellant, that the skilled person reading the description would understand from the relevant passage which percentages of polyvinylidene chloride in the barrier film should be used is not convincing, since the relevant passage does not resolve the above conflict, but on the contrary establishes it.

4.3.4 Consequently, the requirements of Article 84 EPC are not met in relation to the definition of the barrier layer in Claim 1.

- 4.4 Even if these unclarities had not been present, the fact that the amendments undertaken in respect of Claim 1 during the oral proceedings were not effected correspondingly in Claim 11 would itself have resulted in confusion as to the essential features between Claims 1 and 11, and thus have led to unclarity as to the essential features in the sense of Article 84 EPC.
- 4.5 In summary, the claims of the eventual main and sole request of the Appellant still fail to meet the requirements of Article 84 EPC.
5. It must be emphasised in this connection that, whilst amended claims may be admitted at a late stage in the procedure shortly before or during oral proceedings if they are clearly allowable, if there is good reason for the late submission or if they deal with objections from the Board of Appeal or the Opponent ("Case Law of the Boards of Appeal of the European Patent Office", European Patent Office, 1996, page 349, Section 12.3.1), none of these conditions apply in the present case.
- 5.1 On the contrary, the claims forming the request of the Appellant, which were presented at a late stage of the oral proceedings were, for the reasons given, quite clearly unallowable.
- 5.2 Furthermore, the Appellant had repeatedly been warned, both in writing by a communication of the Board prior to the oral proceedings, and verbally at the oral proceedings itself, that there were features in the description, the absence of which from the main claims would result in deficiencies rendering those claims objectionable under Article 84 EPC.

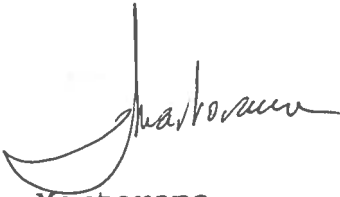
- 5.3 The freedom of the Board to offer specific advice to one of the parties as to how an objection might be overcome, even when such an objection stems from the Board itself, is in this connection severely limited, especially where, as here, in inter partes proceedings, the preservation of judicial impartiality before all the parties is a paramount requirement.
- 5.4 Whilst the Board would have been justified, under the circumstances, in refusing altogether to consider the set of claims finally presented as the main request at the oral proceedings, nevertheless it chose, in its discretion, to admit the amended claims and to consider them in the light of the issue already raised and on which the parties had had opportunity to present their observations, namely that of compliance with Article 84 EPC.
- 5.5 Since, however, there had already been a number of adjournments of the proceedings, the Board saw no alternative but to decide the matter finally.

Order

For these reasons it is decided that:


1. The main request fails to meet the requirements of Article 84 EPC.
2. The appeal is accordingly dismissed.

The Registrar:



P. Martorana

The Chairman:



C. Gérardin

