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) [ ] No distribution

D E C I S I O N
of 20 October 2004

Case Number: T 0664/03 - 3.3.9

Application Number: 92917586.7

Publication Number: 0598017

IPC: B32B 27/08

Language of the proceedings: EN

Title of invention:
Pouch for packaging flowable materials

Patentee:
THE DOW CHEMICAL COMPANY

Opponent:
DUPONT CANADA INC.
ExxonMobil Chemical Patents Inc.

Headword:
-

Relevant legal provisions:
EPC Art. 123(2)
EPC R. 88

Keyword:
"Main request and 1st to 5th auxiliary requests: amendments - added subject-matter (yes) - correction of obvious error (no)"

Decisions cited:
G 0003/89

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0664/03 - 3.3.9

D E C I S I O N
of the Technical Board of Appeal 3.3.9
of 20 October 2004

Appellant: (Proprietor of the patent)
THE DOW CHEMICAL COMPANY
2030 Dow Center
Midland, Michigan 48674 (US)

Representative:
Smulders, Theodorus A.H.J., Ir.
Vereenigde
Postbus 87930
NL-2508 DH Den Haag (NL)

Respondent: (Opponent)
DUPONT CANADA INC.
7070 Mississauga Road
P.O. Box 2200 Streetsville
Mississauga, Ontario L5M 2H3 (CA)

Representative:
James, Anthony Christopher W.P.
Carpmaels & Ransford
43-45 Bloomsbury Square
London WC1A 2RA (GB)

Respondent: (Opponent)
ExxonMobil Chemical Patents Inc.
5200 Bayway Drive
Baytown, TX 77522-2149 (US)

Representative:
Janssen, Bernd Christian
Uexküll & Stolberg
Patentanwälte
Beselerstrasse 4
D-22607 Hamburg (DE)

Decision under appeal:
Decision of the Opposition Division of the European Patent Office announced orally on 8 April 2003 and issued in writing on 22 April 2003 revoking European patent No. 0598017 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Kitzmantel
Members: A. T. Liu
M. B. Tardo-Dino

Summary of Facts and Submissions

I. Appeal was lodged by the Patentee on 20 June 2003 against the decision of the Opposition Division revoking European patent No. 0 598 017 following filing of two oppositions.

II. The decision under appeal was based on Claims 1 to 6 of a main request and Claims 1 to 3 of an auxiliary request. Claim 1 of the main request read as follows:

"Use of (a) from 10 to 100 percent by weight of at least one ultra low density linear ethylene copolymer interpolymerized from ethylene and at least one alpha-olefin in the range of C_3-C_{10} and having a density of from 0.89 to 0.915 g/cm^3, and a melt index of less than 10.0 g/10 minutes, and (b) from 0 to 90 percent by weight of at least one polymer selected from the group consisting of a linear copolymer of ethylene and a C_3-C_{18}-alpha-olefin having a density of greater than 0.916 g/cm^3 and a melt index of from 0.1 to 10 g/10 minutes, a high-pressure low density polyethylene having a density of from 0.916 to 0.930 g/cm^3 and a melt index of from 0.1 to 10 g/10 minutes and ethylene-vinyl acetate copolymer having a weight ratio of ethylene to vinyl acetate from 2.2:1 to 24:1 and a melt index of from 0.2 to 10 g/10 minutes; in a heat seal layer (I) of a film structure for a pouch container to broaden the hot tack sealing range to a heat sealing range of from 70°C to 140°C, wherein the hot tack strength is at least 1.0 N/inch (39.4 N/m), which film structure may optionally comprise

(II) at least one layer of a linear low density ethylene-C_3-C_{18}-alpha-olefin copolymer having a density of from 0.916 to 0.935 and a melt index of from 0.1 to 10 g/10 minutes, the film structure having a hot tack strength initiation temperature of less than 100°C as measured according to the method described in Example 25."

III. The Opposition Division held that Claim 1 according to the main request did not comply with the requirements of Article 123(2) EPC because the feature "to broaden the hot tack sealing range to a heat sealing range of from 70°C to 140°C, wherein the hot tack strength is at least 1.0 N/inch" did not have a basis in the application documents as filed.

IV. With the Statement of the grounds of appeal filed on 1 September 2003, the Appellant resubmitted the two sets of claims according to the main and the auxiliary requests underlying the decision under appeal and filed four further sets of claims, as well as an affidavit of Lloyd Kovacs dated 28 August 2003.

V. At the oral proceedings held on 20 October 2004, the Appellant re-filed the afore-mentioned six sets of claims as basis for a main request and five auxiliary requests, thus clarifying their respective ranking.

Claim 1 of the main request is identical to Claim 1 of the main request on which the decision under appeal was based.

Claim 1 of the first auxiliary request corresponds to Claim 1 of the main request, with the exception that

the feature regarding the hot tack sealing range was amended to read "to broaden the temperature range over which a hot tack strength of at least 1.0 N/inch (39.4 N/m) is achieved, wherein the hot tack strength is measured over a heat sealing range of from 70°C to 140°C"

Claim 1 of the second auxiliary request corresponds to Claim 1 of the main request, with the exception that, at the end of the claim, the film structure was not further defined as "having a hot tack strength initiation temperature of less than 100°C as measured according to the method described in Example 25" but instead, as "having a hot tack strength of at least 1 N/inch (39.4 N/m) as measured at a seal bar temperature of 110°C and at a sealing time of less than 0.2 seconds according to the method described in Example 26".

Claim 1 of the third auxiliary request corresponds to Claim 1 of the second request, with the exception that the feature regarding the hot tack sealing range was amended to read "to broaden the temperature range over which a hot tack seal of a hot tack strength of at least 1.0 N/inch (39.4 N/m) is achieved, wherein the hot tack seal strength is measured over a heat sealing range of from 70°C to 140°C".

Claim 1 of the fourth auxiliary request corresponds to Claim 1 of the second request, with the exception that the upper limit of the heat sealing range is 130°C instead of 140°C.

Claim 1 of the fifth auxiliary request corresponds to Claim 1 of the third request, with the exception that the upper limit of the heat sealing range is 130°C instead of 140°C.

VI. The Appellant's arguments may be summarised as follows:

– In the light of the information in the description of the opposed patent, the person skilled in the art would not interpret the feature "to broaden the hot tack sealing range to a heat sealing range of from 70°C to 140°C (or 130°C)" in the sense that the temperature range of from 70°C to 140°C (or 130°C) was the range to which the hot tack sealing range was broadened to.

– The skilled person would rather interpret that feature as "to broaden the temperature range over which a hot tack seal strength of at least 1.0 N/inch is achieved, wherein the hot tack seal strength is measured over a heat sealing range of 70°C to 140°C (or 130°C)".

– This interpretation was based on the description as filed, in particular Example 25, Tab. VIII and Figure 7 and 8 and would justify a correction under Rule 88 EPC.

VII. The Respondents' submissions were essentially the following:

– The conditions for correction under Rule 88 EPC were not met, because neither did granted Claim 1, and especially the feature concerning the

broadening of the hot tack sealing range, comprise an obvious error, nor was there an apparent inconsistency of this feature with the description.

– The obvious interpretation of the claims was that made by the Opposition Division.

– The different interpretation given by the Appellant was objectionable because it departed from the primary meaning of the words in the claims.

– The amended claims according to the main and the first three auxiliary requests still contravened Article 123(2) EPC since there was no disclosure in the application documents of measuring the hot tack sealing strength over the temperature range of from 70°C to 140°C.

– Regarding Claim 1 of the auxiliary requests four and five, it was an improper generalisation to take the measurement range of from 70°C to 130°C out of the context of Example 25.

VIII. The Appellant requested that the decision under appeal be set aside and that the case be remitted to the Opposition Division for further prosecution under Article 100(b) and 100(a) EPC, on the basis of the main request or, alternatively of anyone of the five auxiliary requests all submitted during the oral proceedings.

The Respondents requested that the appeal be dismissed.

Reasons for the Decision

1. *Main request*

1.1 It is common ground that the phrasing "to broaden the hot tack sealing range to a heat sealing range of from 70°C to 140°C, wherein the hot tack strength is at least 1.0 N/inch" was not contained in the application documents as filed.

1.2 With the above feature, Claim 1 can be literally interpreted as being essentially directed to the use of a defined ultra low density linear ethylene copolymer (ULDPE) in a heat seal layer with the result that the hot tack sealing range of the film structure comprising that heat seal layer is broadened as compared to the case where such ULDPE is not used. More specifically, the hot tack sealing range of the film structure shall be broadened to cover the (entire) heat sealing range of from 70°C to 140°C. As indicated in the decision under appeal and not refuted by the Appellant, there is no basis in the application documents as filed for a hot tack sealing range of a ULDPE heat seal layer of from 70°C to 140°C.

1.3 The question is therefore as to whether, in the light of the description as originally filed and, if necessary, using common general knowledge, the skilled person would give to this feature a different interpretation that complies with the requirements of Article 123(2) EPC. In this respect, the Appellant referred to the text of Example 25 where it is indicated that "the temperature between Hot Tack T_i and

the temperature of maximum Hot Tack Strength indicates the size of the hot tack sealing range", the Hot Tack Initiation Temperature ("Hot Tack T_i") being "the lowest temperature at which a seal is formed. A seal force of 1.0 N/inch (39.4 N/m) was selected as the force required to form an adequate seal, and therefore, Hot Tack T_i is found at a force of 1.0 N/inch (39.4 N/m)." (page 25, lines 28 to 31 and page 26, lines 5 to 6).

The Board notes that the test data shown in Table VIII reveal that the hot tack sealing ranges for the tested samples are indeed narrower than the range of 70°C to 140°C stipulated in Claim 1. However, this fact does not mean that Example 25 is in contradiction with the wording of Claim 1. In fact, it is not unusual in the art to formulate a Claim which encompasses the examples but which is not restricted to these only. Thus, based on the description, including Example 25, the skilled person would not have any reason to suspect that the feature "to broaden the hot tack sealing range to a heat sealing range of from 70°C to 140°C" was to be interpreted differently from its literal meaning.

1.4 Finally, at the oral proceedings, the Appellant mentioned that the Hot Tack Seal Initiation Temperature T_i was a new parameter coined by the Appellant upon the discovery of a relationship between the hot tack initiation temperature and the density of the polymer used for making the heat seal layer. As a consequence, the term "hot tack seal range" is also new. In such a case, there is no general common knowledge on which the skilled person may fall back in order to interpret the wording of Claim 1.

1.5 The Board does not ignore the affidavit by Mr Kovacs, in which it is asserted "that the claims do not mean that the ethylene copolymer has a heat seal of at least 1.0 N/inch (39.4 N/) when sealing is carried out at a temperature anywhere within a window as broad as the range of from 70°C to 140°C" (see point 11 of the affidavit). However, he has not given any explanation as to why such feature would not be technically feasible. As is observed above, there is no direct and unambiguous support for Mr Kovacs' allegation in the patent in suit, even when the general common knowledge in this field is taken into consideration.

1.6 As a corollary to the above, the Board holds that the skilled person has no reason to interpret the wording of Claim 1 other than literally. Claim 1 therefore does not meet the requirements of Article 123(2) EPC for the reasons given in points 1.1 and 1.2 above.

2. *First auxiliary request*

2.1 In Claim 1 of this request, the hot tack sealing feature discussed above is amended to read "to broaden the temperature range over which a hot tack strength is at least 1.0 N/inch (39.4 N/m) is achieved, wherein the hot tack strength is measured over a heat sealing range of from 70°C to 140°C". According to the Appellant, the basis for this feature could be found in the original description, page 2, lines 18 to 22; page 4, lines 17 to 19, Example 25 and Figures 7 and 8.

2.2 The Board notes that the description at page 2, lines 18 to 22 is not directed to any aspects of the alleged invention but to the hot tack seal initiation

temperatures and sealing range of prior art polyethylene films. This information is therefore not suitable to support the Appellant's case.

At page 4, lines 17 to 19, it is mentioned that "a surprising feature of the pouch's film structure of the present invention is the film's broad heat sealing range. Generally, the heat sealing range of the film structure can be from 70°C to 140°C". Since "a heat sealing range" is not necessarily the range of temperatures over which the hot tack strength is measured, this passage cannot be considered as support for the feature "wherein the hot tack strength is measured over a heat sealing range of from 70°C to 140°C".

Finally, in Example 25, the hot tack strength is measured over the temperature range of from 70°C to 130°C (see in particular page 24, line 35). There is no basis for the feature of conducting the measurements to an upper limit of 140°C. Nor can Figures 6 to 8 provide additional information since they are only graphic illustrations of some of the data obtained according to Example 25 (see page 26, lines 3 to 7). As a consequence, the amendment to Claim 1 of the first auxiliary request contravenes Article 123(2) EPC.

2.3 The Board, for the following reasons, does not concur with the Appellant that this amendment of Claim 1 should be accepted under Rule 88 EPC, as a correction to the wording of Claim 1 as granted.

2.3.1 Assuming that such a request for correction could be admitted at this stage - which is highly disputable -

Rule 88 EPC provides that if such request concerns the description, claims or drawings, the correction must be obvious in the sense that it is immediately evident that nothing else must have been intended than what is offered as correction. Furthermore, in the decision G 3/89 (OJ EPO: 1993, 117), the Enlarged Board of Appeal specified that, for a correction under Rule 88, second sentence EPC, to be allowed, the respective part of the European patent must contain such an obvious error that a skilled person was in no doubt that the feature concerned cannot be meant to read as such. If, on the other hand, it was doubtful whether that feature was incorrectly defined, then a correction was ruled out (see point 5 of the decision).

2.3.2 In the present case, the wording in Claim 1 "to broaden the hot tack sealing range to a heat sealing range of from 70°C to 140°C, wherein the hot tack strength is at least 1.0 N/inch" is comprehensible in its literal sense and a different interpretation does not impose itself in view of the description and/or the common general knowledge (see points 1.2 to 1.6 above). Even if the Board considered an interpretation of granted Claim 1 in the broader context of the description, it was at least doubtful that the skilled person would come to the conclusion that the feature in question was incorrectly defined in that claim. Therefore, the precondition for correction under Rule 88, second sentence EPC is not met.

3. *Second auxiliary request*

Claim 1 of this request includes the feature "to broaden the hot tack sealing range to a heat sealing

range of from 70°C to 140°C". It is therefore not allowable for the same reasons as for Claim 1 of the main request.

4. *Third auxiliary request*

The reasoning for Claim 1 of the first request applies mutatis mutandis to Claim 1 of this request which includes the feature "to broaden the temperature range over which a hot tack seal of a hot tack seal strength of at least 1.0 N/inch (39.4 N/m) is achieved, wherein the hot tack seal strength is measured over a heat sealing range of from 70°C to 140°C".

5. *Fourth auxiliary request*

Claim 1 of this request includes the feature "to broaden the hot tack sealing range to a heat sealing range of from 70°C to 130°C". Thus, compared to the corresponding feature in Claim 1 of the main request, the upper limit of the heat sealing range is 130°C instead of 140°C. The reasoning for Claim 1 of the main request therefore applies *mutatis mutandis* to Claim 1 of this request since there is no basis in the application documents as filed for a hot tack sealing range of a ULDPE heat seal layer of from 70°C to 130°C.

6. *Fifth auxiliary request*

Claim 1 of this request is identical to Claim 1 of the third auxiliary request, with the only difference that "the hot tack strength is measured over a heat sealing range of from 70°C to 130°C".

6.1 It is common ground that the only disclosure in the description indicating hot tack strength measurements over the temperature range of from 70°C to 130°C is in Example 25. The question is therefore as to whether, based on this example alone, a generalisation can be made in the sense that the use of from 10 to 100 percent by weight of a ultra low density linear ethylene copolymer as defined in Claim 1 results in broadening the temperature range over which a hot tack strength of at least 1.0 N/inch (39.4 N/m) is achieved.

6.2 The Board accepts the Appellant's submission presented during the oral proceedings and understands the broadening of the hot tack sealing range as relative to a standard using a commercially available film such as the "SCLAIRFILM SM-3" mentioned in the description, at page 11, lines 19 to 23. This standard is tested as Comparative Sample 3 in Example 25. The test results for this standard and a number of samples according to the alleged invention are listed in Table VIII (page 25). These test data show that not all samples made with the use of an ULDPE as defined in Claim 1 have a hot tack seal range broader than that of the afore-mentioned standard. Indeed, for Sample 2A, made according to the alleged invention, this range is between 105°C to 120°C while it is between 104.5°C to 120°C for the Comparative Sample 3. This observation is in agreement with the Appellant's submission of 17 November 2000, which was confirmed at the oral proceedings before the Board. Example 25 thus cannot serve as a basis for the contention that, as a general rule, the hot tack sealing range is broader (relative to a standard) when an ULDPE as defined in Claim 1 is used in a heat seal layer of a film structure. As a

consequence, the Board holds that the amended Claim 1 of this request lacks support in the application documents as originally filed, and thus contravenes Article 123(2) EPC.

6.3 The above conclusion is not invalidated by the Appellant's argument that Sample 2A was not an example according to the alleged invention because it did not exhibit the desired broadening of the hot tack sealing range (see also letter of 17 November 2000, page 12, last paragraph). The inappropriateness of this argument is apparent from the fact that the film structure of sample 2A is encompassed by the wording of Claim 1.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Röhn P. Kitzmantel