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**D E C I S I O N**  
of 19 May 1998

**Case Number:** T 0741/95 - 3.3.3  
**Application Number:** 83300831.1  
**Publication Number:** 0092897  
**IPC:** C08L 23/04

**Language of the proceedings:** EN

**Title of invention:**

Polymeric composition of matter, oriented polymeric films and shrink bags made therefrom

**Patentee:**

American National Can Company

**Opponent:**

Kureha Kagaku Kogyo Kabushiki Kaisha  
W. R. Grace & Co.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 56  
EPC R. 55(c)

**Keyword:**

"Inventive step (yes) - non-obvious omission of feature"  
"New ground of opposition (no) - disapproval of patentee"

**Decisions cited:**

G 0009/91, G 0010/91, T 0069/83

**Catchword:**

-



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Boards of Appeal

Chambres de recours

Case Number: T 0741/95 - 3.3.3

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.3  
of 19 May 1998

**Appellant:**  
(Opponent 02)

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**Decision under appeal:**

Decision of the Opposition Division of the  
European Patent Office posted 14 August 1995  
rejecting the opposition filed against European  
patent No. 0 092 897 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** C. Gérardin  
**Members:** P. Kitzmantel  
W. Moser

## Summary of Facts and Submissions

I. European patent application No. 83 300 831.1 in the name of AMERICAN NATIONAL CAN COMPANY, which had been filed on 18 February 1983, claiming priority from a US application filed on 26 April 1982, resulted in the grant of European patent No. 92 897 on 4 April 1990 on the basis of 11 claims, Claims 1, 2, 5 to 7 and 10 reading as follows (Claims 1, 2, 6, 7 and 10 are independent claims; dependent Claim 5 is quoted here, because, together with independent Claims 6 and 7, it was subject to a particular objection of the Appellant: cf. points V(viii) and VI(ix) below):

"1. An oriented multiple layer polymeric film, consisting of a barrier layer and two blend layers composed of linear low density polyethylene (LLDPE) and ethylene vinyl acetate copolymer (EVA) disposed one to either side of the first layer, and the blend layers have the same composition which consists of 10% to less than 30% or more than 30% to 90% LLDPE and the balance is EVA, the percentages quoted being by weight."

"2. An oriented multiple layer polymeric film, consisting of a barrier layer and two blend layers composed of LLDPE and EVA disposed one to either side of the barrier layer, and one blend layer consists of 10% to less than 30% or more than 30% to 90% LLDPE the balance being EVA, and the other blend layer consists of 10% to less than 20% or more than 20% to 90% LLDPE the balance being EVA, the percentages quoted being by weight."

"5. A film according to claims 1 to 3, which includes two further layers each comprising an EVA, the EVA layers each being laminated to a respective one of the blend layers."

"6. An oriented multiple layer polymeric film, consisting of a first barrier layer having second and third layers each adhered to a respective one of the opposite surfaces of the first layer, and fourth and fifth layers respectively adhered to surfaces of the second and third layers not adhered to the first layer, the second and third layers each being a blend of LLDPE and EVA and each of the fourth and fifth layers being an EVA, the second and third layers having the same composition and being composed of 10 to less than 20% or more than 80 up to 90% LLDPE and the balance being EVA; the percentages quoted being by weight."

"7. An oriented multiple layer polymeric film, consisting of a first barrier layer having a second and third layers each adhered to a respective one of the opposite surfaces of the first layer, and fourth and fifth layers respectively adhered to surfaces of the second and third layers not adhered to the first layer, the second and third layers each being a blend of LLDPE and EVA and each of the fourth and fifth layers being an EVA, the second and third layers having different compositions, one of the layers being composed of 10 to less than 20% or more than 80 up to 90% LLDPE, the balance being EVA, and the other of these layers being composed of more than 10 up to 90% LLDPE, the balance being EVA; the percentages quoted being by weight."

"10. A shrink bag made from an oriented film according to any of claims 1 to 9."

Claims 3 to 5 were dependent on Claims 1 and/or 2, Claims 8 and 9 were dependent, respectively, on Claims 1 to 7 and Claims 1 to 8, and Claim 11 was dependent on Claim 10.

II. Notices of Opposition were filed by KUREHA KAGAKU KOGYO KABUSHIKI KAISHA (Opponent I) on 3 January 1991 and by W.R. GRACE & CO (Opponent II) on 20 December 1990, both requesting revocation of the patent in its entirety, on the ground(s) that the claimed subject-matter lacked novelty and/or inventive step over i.a. documents

D1: EP-A-0 032 027,

D3: US-A-3 549 389,

D4: EP-A-0 051 480,

D5: CA-A-0 982 923, and

D7: MITSUI DATA SHEET ULTZEX.

III. By its decision orally announced on 10 May 1995 and issued in writing on 14 August 1995 the Opposition Division rejected the opposition.

It was held in that decision that, with respect to the cited prior art, the subject-matter of the patent in suit was novel and involved an inventive step. In particular, it was not obvious over document D1 to obtain, by omission of thermoplastic adhesive layers used according to this document between the barrier layer and the surface layers, heat-shrinkable multilayer laminate films able to pass the shrink process intact. Objections under Article 123(2) EPC raised by the Opponent II for the first time during the oral proceedings were disregarded under Article 114(2) EPC.

IV. Notice of Appeal against the above decision, with simultaneous paying of the appeal fee, was filed by Opponent II (Appellant) on 29 August 1995. The Statement of Grounds of Appeal was submitted on 27 December 1995.

Further written submissions of the Appellant date from 25 November 1996, 15 October 1997, 21 April 1998 and 27 April 1998.

V. In the written proceedings the Respondent (Proprietor) relied on counterarguments presented in his replies of 2 July 1996, 12 May 1997 and 23 April 1998.

VI. With letter dated 16 July 1996 Opponent I declared that he was no longer interested in this opposition procedure and did not want to receive any further correspondence.

VII. The arguments presented by the Appellant in writing and during oral proceedings held on 29 April 1998 may be summarized as follows:

- (i) The omission of the adhesive layer between the barrier layer and one of the two outer layers comprising linear low density polyethylene (LLDPE) of the 4-layer films according to Figure 1 of D1, the only difference between the 3-layer films according to Claims 1 and 2 of the patent in suit and those according to said Figure 1, merely amounted to a worsening of these 4-layer films. In line with T 69/83 (OJ EPO 1984, 357), this omission could not, therefore, provide an inventive step.

- (ii) This was established, first, by the evidence contained in Table 4 of document D4 which demonstrated that films without adhesive layers between a central barrier layer and outer layers comprising LLDPE exhibited a peel resistance which was inferior to that of films having such layers (cf. Comparative Example 3 versus Example 1), and, secondly, by the test results contained in document

D11: Declaration of Mr Childress submitted with the Appellant's letter dated 21 April 1998, which contained an experimental test report based on Example 8 of D1.

- (iii) In the Appellant's opinion, D11 should be admitted into the appeal for the following reasons:

- (a) because its content was highly relevant to the issues under consideration in that it provided the only true comparison with the closest state of the art (Example 8 of D1),
- (b) because its late submission was justified by the important change of Mr Childress' status of employment with regard to W.R. Grace & Co., the appealing company (cf. Appellant's submission dated 27 April 1998, page 2, penultimate paragraph), and
- (c) because D10 did not relate to new facts, but did only elaborate on and reinforce previous assertions.

- (iv) In view thereof, so the Appellant contended, the subject-matter of Claims 1 and 2 of the patent in suit did not involve an inventive step, because, according to D1, the presence of adhesive layers was not indispensable and because the skilled person was aware that, while maintaining the good heat and oil resistance of the films according to D1, the required resistance of the films against layer separation, in the absence of an adhesive layer, could also be obtained by the inclusion, into the outer LLDPE-containing layers, of a sufficient amount of a polar component, like ethylene vinyl acetate polymer (EVA).
- (v) The latter conclusion was supported by the fact that, according to document D3, column 14, Samples No. 52 and 53 (in combination with column 15, lines 23 to 65), for the purpose of bonding a barrier layer ("Saran<sup>(R)</sup>" = polyvinylidene chloride [PVDC]) to polyolefin layers (there polyethylene) either an EVA copolymer alone (cf. note (V)) or a blend of polyethylene and EVA (note (W)) could be employed. Thus, the skilled person was aware that a polyolefin blend comprising EVA provided sufficient adhesiveness to a PVDC barrier layer and that no additional adhesive layer was necessary.
- (vi) In this context it was also worth noting that the vinyl acetate (VA) content of the LLDPE-EVA blends used for the adhesive layers according to D1 could be as low as 5 mole-% (cf. pages 9, 10,



bridging paragraph), while the EVA used as LLDPE blend component according to the patent in suit might comprise up to 25 mole-% of VA (cf. Table 1, page 5, line 32 (polymer "360")), thus providing considerable "adhesive polarity".

- (vii) Since it was also known from D1 that blends of an  $\alpha$ -olefin polymer having a crystalline melting point of not lower than 110°C, like LLDPE, and an  $\alpha$ -olefin polymer having a crystalline melting point of from 80° to 110°C, like EVA, have improved stretchability (cf. pages 8, 9, bridging paragraph), the Respondent's assertion that the presence of an adhesive layer was necessary for the purpose of providing the necessary stretchability of the outer LLDPE/EVA layer used according to Claims 1 and 2 of the patent in suit was also not conclusive.
- (viii) The closest state of the art for the 5-layer films according to Claims 5 to 7 of the patent in suit, which all comprised two outermost surface layers of EVA, was represented by Example 8 of D1 (cf. page 15, Table 2, in combination with page 14, Table 1). On the basis of that teaching the technical problem underlying the subject-matter of said Claims 5 to 7 was merely the provision of alternative 5-layer films, irrespective of their heat and oil resistance, which latter property, as known from D1, could not be afforded by EVA.
- (ix) The solution of this problem as specified in Claims 5 to 7 did not involve an inventive step, because the reversal of the order of the film layers - from "LLDPE/EVA-EVA-PVDC-EVA-LLDPE/EVA"

according to Example 8 of D1 to "EVA-LLDPE/EVA-PVDC-LLDPE/EVA-EVA" - did not give rise to any surprising improvement, but rather led to an expected deterioration of the delamination, heat and oil resistance.

- (x) Furthermore, the Appellant contended that Claims 1 and 3 to 7 contravened Article 123(2) EPC and that the Board should consider these objections under Article 114(1) EPC because (a) they were prima facie highly relevant and (b) they had in effect been considered and, thus, admitted by the Opposition Division.

VIII. The arguments of the Respondent may be summarized as follows:

- (i) In view of the teaching of D1 according to which the poor stretchability of LLDPE-containing layers could be overcome by the provision of an adhesive layer (e.g. EVA) between the barrier layer and the outer LLDPE containing layers the omission of such layers was clearly non-obvious over this document.
- (ii) From the statement in D1 (pages 8, 9, bridging paragraph) that blends of an  $\alpha$ -olefin polymer having a crystalline melting point of not lower than 110°C, like LLDPE, and an  $\alpha$ -olefin polymer having a crystalline melting point of from 80° to 110°C, like EVA, have improved stretchability, it could not be inferred that in this instance an adhesive layer was no longer necessary. This was clear from Table 2, Example 8, according to which adhesive EVA layers were provided in spite of the use of LLDPE-EVA blends for the outer film layers.

(iii) While it was not denied that the presence of polar groups in a polymer composition was of importance for its adhesive properties, the Appellant's argument that in the presence of a sufficiently polar character of the LLDPE-EVA blend layer the provision of an adhesive layer was no longer necessary was clearly based on hindsight and ran counter to the whole teaching of D1.

(iv) Furthermore, the skilled person had expected from the information contained in D1 itself, and also in documents D7,

D8: "Adhesives for Plastic Film Lamination: The Changing State of the Art", D. Bentley, Society of Plastic Engineers, Nat'l Tech. Conf. "Plastics in Packaging and Acrylonitrile November 13-15, 1978", and

D9: US-A-4 207 363

that the omission of the adhesive layers would render the films liable to delamination.

(v) Surprisingly, however, the test results reported in document

D10: Declaration of Mr Galloway filed with the Respondent's letter dated 2 July 1996

showed that the films according to the patent in suit, which did **not** contain an adhesive layer, exhibit better clarity, gloss, seal strength and burst strength than films according to D1, which

did comprise adhesive EVA layers. Thus, the teaching of the patent in suit did not, as argued by the Appellant, merely consist in a worsening of the prior art films which was to be expected.

- (vi) The contrary results reported in D11 by Mr Childress should, in the Respondent's view, be disregarded because they had been filed too late, i.e. only four weeks before the oral proceedings, a period of time insufficient for the preparation of counter-experiments.
- (vii) The omission of adhesive layers between the barrier layer and each one of the LLDPE-containing surface layers, therefore, was not foreshadowed in the prior art and represented an unobvious alternative over the films according to D1, which comprised a simpler structure, less material and fewer extrusion dies. The claimed solution was therefore based on an inventive step.
- (viii) Even if one accepted the Appellant's allegation that the delamination resistance of the films according to the patent in suit was worse than that of the films according to D1, it was demonstrated by the economical success reported in the

Declarations of Mr Galloway, filed with the Proprietor's letters dated 31 March 1995 and 25 April 1995 in opposition proceedings,

that this "worsening" did not detract from the practical suitability of these films for the indented purpose of meat and cheese packaging.

- (ix) The conclusion of non-obviousness for the 3-layer films according to Claims 1 and 2 also applied to the 5-layer films according to Claims 5 to 7, because the teaching in D1 that an LLDPE containing layer adjacent to a PVDC barrier layer cannot be sufficiently stretched in the absence of an interposed adhesive layer is equally valid for both film constructions.

Moreover, contrary to the Appellant's contention, also the 5-layer films, where the LLDPE-EVA blend layers are covered with outer EVA layers, possessed good heat and oil resistance.

- (x) The Respondent did not approve of the fresh ground of opposition under Article 100(c) EPC and contended that in this event, the Enlarged Board's opinion in G 9/91 and G 10/91 (cf. OJ EPO 1993, 408 respectively 420), barred the Board from considering this new ground.

IX. The Appellant requested that the decision under appeal be set aside and the patent be revoked in its entirety.

The Respondent requested that the appeal be dismissed.

## Reasons for the Decision

1. The appeal is admissible.
2. *New ground of opposition not covered by Rule 55(c) EPC*
  - 2.1 According to the decision under appeal, point 12 of its Reasons, the ground of opposition under Article 100(c) EPC, which for the first time was brought forward by the Opponent II (now Appellant) in the oral proceedings before the Opposition Division, was disregarded under Article 114(2) EPC, i.e. not admitted for consideration into the opposition. The Opposition Division supplemented this finding by some explanations as to why, in their opinion, this ground was prima facie not well founded.
  - 2.2 In the appeal proceedings the Appellant reiterated his objections under Article 100(c) EPC. The Respondent, however, did not approve of this new ground of opposition being introduced at this stage (cf. points VII(x) and VIII(x) supra).
  - 2.3 The Opposition Division's decision follows the principles set out in the Enlarged Board's decision G 9/91 (cf. supra) according to which (point 16 of the Reasons) an Opposition Division **may** consider a new ground of opposition not covered by the statement pursuant to Rule 55 (c) EPC, but only "in cases where, prima facie, there are clear reasons to believe that such grounds are relevant and would in whole or in part prejudice the maintenance of the European patent."
  - 2.4 Since, therefore, by disregarding the new ground of opposition under Article 100(c) EPC the Opposition Division did not commit any procedural violation, and in view of the finding of the Enlarged Board in point 18 of the Reasons of G 9/91 (cf. supra) that in

principle new grounds of opposition may not be introduced at the appeal stage unless they are highly relevant **and** unless the Proprietor agrees to its admission, the Board cannot but exclude this new ground from the appeal.

3. *Late filed evidence*

Document D11, the Declaration of Mr Childress, was submitted by the Appellant on 21 April 1998, i.e. 28 days (4 weeks) before the oral proceedings. A copy was transmitted to the Respondent on the same day. Despite this late filing the Board decided to exceptionally admit this evidence into the appeal with the proviso that no final decision relying on D11 would be taken against the Respondent during the oral proceedings.

The reason for the Board's admittance of D11 was that the experimental results reported therein, in confirmation of arguments raised by the Appellant since the very outset of his opposition (cf. Notice of Opposition dated 17 December 1990, Section IV), seemed to provide a particularly accurate comparison with the closest prior art (D1, Example 8 of Table 2). The nature of this new evidence was thus no surprise to the Respondent, who himself, with his first submission in this appeal (dated 2 July 1996), had filed results of similar comparative tests (D10; Declaration of Mr Galloway), *prima facie* being much less relevant than those of D11, because of the diverging composition of the outer layers of the comparative film exemplified therein (D10: blend of 80% EVA and 20% LLDPE; Example 8 of D1: blend of 50% EVA and 50% LLDPE).

4. *Novelty (Article 54 EPC)*

In the Notice of Opposition the Appellant cited D4 as relevant against novelty within the meaning of Article 54(3) EPC. In its decision the Opposition Division explained that this citation was not relevant against Claim 1 because of compositional differences, nor against Claim 2 because of the matter actually disclaimed. Since the Appellant did not maintain the objection in the appeal proceedings and since the Board is also of the opinion that the requirement of Article 54(3) EPC is met, there is no need to consider this issue in more detail.

5. *Inventive step*

5.1 Document D1/closest prior art

This document is concerned with the provision of heat-shrinkable laminate films having improved heat and oil resistance over films having outer layers from EVA or ionomer resin, which films nevertheless can be produced by stretching at relatively low temperature (page 4, lines 3 to 23; page 2, lines 5 to 16; page 3, lines 7 to 19).

According to D1, the solution of this problem was achieved by the development of a heat-shrinkable laminate film, particularly for packaging food of irregular shape, having heat resistance, oil resistance, gas-barrier property and a heat-shrinkability of not less than 15% at 95°C, which film comprises (A) a core layer of a vinylidene chloride copolymer resin, (B) outer surface layers comprising a poly- $\alpha$ -olefin having a crystalline melting point of not lower than 110°C, including LLDPE of the tradename "Ultzex<sup>(R)</sup>" (cf. D7) or mixtures of "Ultzex<sup>(R)</sup>" with EVA, and (C) an intermediate layer of a thermoplastic resin



having a crystalline melting point of from 70° to 100°C, e.g. a copolymer of ethylene vinyl acetate (EVA), interposed between the core layer (A) and at least one of the surface layers (B) (Claims 1, 6, 8; page 8, lines 17 to 29; page 8, line 33 to page 9, line 15; page 12, lines 27 to 31).

Figure 1 and Figure 2 show films according to this disclosure whose laminate structures comprise one (Figure 1) or two (Figure 2) intermediate layer(s) (C) interposed between the core (A) and the outer layer(s) (B). According to page 9, lines 16 to 20 the films **must** comprise at least one layer (C).

The embodiment coming closest to the subject-matter of the patent in suit is disclosed in Example 8 (Table 2, page 15 in combination with Table 1, page 14). That film comprises a central PVDC barrier layer (j), adjacent thereto on both sides adhesive EVA layers (b) and surface layers (k) made from a mixture of "Ultzex<sup>(R)</sup>" ethylene/ $\alpha$ -olefin copolymer (e) and EVA (d<sub>1</sub>).

## 5.2 Distinguishing features

The films according to Claims 1 and 2 of the patent in suit differ from those according to D1 by the omission of any adhesive layer between the central barrier layer and the outer LLDPE-containing layers.

The same differences exist with respect to the films according to Claims 5 to 7 of the patent in suit, with the exception that in these cases the LLDPE-containing layers are not surface layers but are covered with EVA top layers.

5.3 Problem and solution

5.3.1 As compared to the films according to D1, the problem underlying the subject-matter of the patent in suit was the provision of alternative food packaging films of simpler structure without impairing their desirable combination of properties (cf. patent specification page 2, lines 13 to 56).

This problem is the same for the films according to Claims 1 and 2 and those according to Claims 5 to 7, because the requirements of good heat and oil resistance contributed by LLDPE containing surface layers, and the contribution of other properties like good heat sealing afforded by EVA surface layers are to be chosen according to the concrete packaging use and do not form, therefore, an essential part of the existing technical problem to be solved vis-à-vis D1 (cf. patent specification, page 6, lines 53 to 65, Figure 3).

5.3.2 According to the patent in suit, the solution of this technical problem consists in the direct juxtaposition of a barrier layer, preferably made from PVDC, and of LLDPE containing layers without the interposition of (an) adhesive layer(s).

5.3.3 The Board is satisfied by the evidence contained in the patent in suit (Examples 3 and 4 on page 4, line 54 to page 6, line 25) and in the Declaration of Mr Galloway filed with the Respondent's letter dated 25 April 1995 that this problem has effectively been solved in a technically satisfactory manner susceptible to successful commercialization.

#### 5.4 Obviousness

The whole disclosure of D1 focuses on the use of adhesive layers (C) between the central barrier layer (A) and the outer layers (B). At least one layer (C) must be present (page 4, lines 24 to 33; page 9, lines 16 to 20; page 10, lines 7 to 12; Table 2, Examples 1 to 11; Figures 1 and 2).

It was therefore, prima facie non-obvious to omit both adhesive layers (C).

Since neither any of the further documents cited by the Appellant, nor the common general knowledge of the person skilled in the art contains any suggestion to the claimed solution of the existing technical problem, this solution was non-obvious. This conclusion pertains to the subject-matter of Claims 1, 2 and 5 to 7 because they all comprise the same technical solution, i.e. the juxtaposition of a barrier layer and of a LLDPE containing layer.

- 5.4.1 The above conclusion was questioned by the Appellant on the basis of the following statement on page 10, lines 19 to 22 of D1 which, at first sight, appears to cast some doubt on the necessity to have adhesive layers:

"In order to facilitate stretching of the  $\alpha$ -olefin polymer, it is preferable that the layers adhere to each other, and adhesive layers can be interposed between the respective layers according to necessity".

- 5.4.2 However, when interpreted in the context of the whole disclosure of D1 this statement does not imply that films according to that invention may be devoid of any adhesive layer.

5.4.3 It is set out in D1 on page 3, lines 10 to 13 "However, since an  $\alpha$ -olefin resin [here LLDPE] has poor stretchability, it is difficult to laminate a layer of this resin with a PVDC [barrier] layer and to stretch the laminated layers." On page 4, lines 11 to 17 D1 puts emphasis on the poor stretchability of  $\alpha$ -olefin resins by stating: "However, since a stretching temperature at which a heat- and oil resistant resin exhibits a tensile strength of from 5 to 25 Kg/cm<sup>2</sup> at 50% elongation is relatively high, a heat-shrinkability of not less than 15% at 95°C cannot be obtained." According to D1 this is an important restriction for the possible use of  $\alpha$ -olefin polymers, like LLDPE, because the above mentioned physical properties guarantee that the films "can be stretched very easily" (cf. pages 3, 4, bridging sentence).

5.4.4 These statements, in conjunction with the clear teaching on page 9, lines 16 to 20 that the "laminate film of the present invention must comprise at least one layer of the thermoplastic resin (C) ..." and the corroborating definition of the intermediate layer (C) in Claim 1 ("interposed between the core layer (A) and at least one of the surface layers (B)"), do not leave any doubt that the statement on page 10, lines 19 to 22 (cf. point 5.4.1 supra) relates to the two alternative film constructions set out in Figures 1 and 2 of D1, i.e. films having either two or only one adhesive layer(s) (cf. page 10, lines 7 to 10). A film structure without any adhesive layer would clearly go against the necessity of good stretchability of the  $\alpha$ -olefin polymer (LLDPE containing) layer and cannot, thus, be comprised by the disclosure of D1.

5.4.5 In view of the fact that D1 requires the presence of (an) adhesive layer(s) in order to achieve sufficient **stretchability** of the  $\alpha$ -olefin polymer (LLDPE) layers, the Appellant's attempts to prove that it was obvious

to envisage films, which - due to the omission of adhesive layers - would have lower **delamination resistance**, are clearly beyond the point. Even admitting that this argument was right, it could not set aside the necessity, according to D1, of the presence of at least one adhesive layer for achieving the required stretchability.

Considering this situation, it cannot have been obvious over D1 to totally omit adhesive layers.

5.4.6 This conclusion is not invalidated by the statement in D1, page 9, lines 4 to 8, namely that "... a mixture of these two resins [here LLDPE and EVA] was found to have ... higher stretchability ...", from which the Appellant sought to infer that - for the purpose of improved stretchability - the use of layers from such mixtures renders the use of an adhesive layer unnecessary. The films according to Example 8 of D1 (page 15, Table 2 in combination with page 14, Table 1) clearly disprove this inference in that they comprise an adhesive layer despite of the use as outer surface layer of a blend of the LLDPE "Ultzex<sup>(R)</sup>" and EVA.

5.4.7 In view of the conclusion drawn under point 5.4.5 supra, the evidence adduced by the Appellant in order to show that by the omission of adhesive layers films with lower peel resistance and/or seal strength would be obtained (D3, D4, D11) can be disregarded, since it is not relevant to the issue of stretchability as set out in D1. The same applies to the respective evidence of the Respondent, particularly to D10.

Thus, the respective arguments of the Appellant (cf. point VII(i) to (vi)) are not decisive for the pending question of obviousness and need therefore not be dealt with in this decision.

5.4.8 The above reasoning of non-obviousness equally applies to the 3-layer films according to Claims 1 and 2 of the patent in suit as well as to the 5-layer films according to Claims 5 to 7.

As to the very essence of D1, i.e. the necessity for the stretching of an  $\alpha$ -olefin polymer layer of the presence of at least one adhesive layer between said  $\alpha$ -olefin polymer layer (e.g. LLDPE) and the barrier layer (e.g. PVDC), there is no difference between 3- and 5-layer films (cf. e.g. D1, page 3, lines 10 to 13 "However, since an  $\alpha$ -olefin resin [here LLDPE] has poor stretchability, it is difficult to laminate a layer of this resin with a PVDC [barrier] layer and to stretch the laminated layers").

Thus, as set out under point 5.4 supra, the person skilled in the art looking for alternative films would not have considered to omit the adhesive layer(s) between the barrier layer and the  $\alpha$ -olefin polymer layer of the known structures.

Whether or not, by the provision of EVA top layers, which are less heat and oil resistant than LLDPE layers, the 5-layer films, in this respect, are inferior to the 3-layer films, has no impact on the issue of obviousness to be decided.

5.4.9 In this situation the Appellant can also not gain anything for his case from T 69/83 (cf. point VII(ix) supra), because in the present case the issue of obviousness does not turn upon the acceptance of a disadvantage resulting from the omission of one component, which in T 69/83 did not amount to the overcoming of a prejudice (cf. Reasons, point 3, 6th paragraph, last sentence).

6. Thus, the subject-matter of Claims 1, 2 and 5 to 7 involves an inventive step.

The same conclusion applies a fortiori to the shrink bags according to independent Claim 10 of the patent in suit, which are made from the oriented films according to the former claims.

The dependent Claims 3, 4, 8, 9 and 11 do not contain any features to which the afore-mentioned considerations in favour of non-obviousness would not apply. Therefore, their subject-matter equally involves an inventive step.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

  
E. Görgmaier

The Chairman:

  
C. Gérardin

