

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 2 July 2019**

Case Number: T 1241/15 - 3.3.09

Application Number: 09744956.5

Publication Number: 2344332

IPC: B32B27/32, B65D71/00, B65D85/16

Language of the proceedings: EN

Title of invention:
MULTILAYER FILM

Patent Proprietor:
Saudi Basic Industries Corporation

Opponent:
Borealis AG

Headword:

Relevant legal provisions:
EPC Art. 100(a), 54, 56
RPBA Art. 12(4)

Keyword:

Decisions cited:

T 0495/91

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1241/15 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 2 July 2019

Appellant: Saudi Basic Industries Corporation
(Patent Proprietor) P.O. Box 5101
Riyadh 11422 (SA)

Representative: Sabic Intellectual Property Group
Sabic Intellectual Property Department
P.O. Box 3008
6160 GA Geleen (NL)

Appellant: Borealis AG
(Opponent) IZD Tower
Wagramerstrasse 17-19
1220 Wien (AT)

Representative: Dehns
St. Bride's House
10 Salisbury Square
London EC4Y 8JD (GB)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
21 April 2015 concerning maintenance of the
European Patent No. 2344332 in amended form.**

Composition of the Board:

Chairman W. Sieber
Members: M. Ansorge
A. Jimenez

Summary of Facts and Submissions

- I. This decision concerns the appeals lodged by the opponent and the proprietor against the interlocutory decision of the opposition division that European patent No. 2 344 332 as amended met the requirements of the EPC.
- II. With its notice of opposition, the opponent had requested revocation of the patent in its entirety on the basis of Article 100(a) EPC (lack of novelty and lack of inventive step) and Article 100(b) EPC.
- III. The documents submitted during the opposition proceedings included the following:
- D1: US 6,045,882
- D2: AU 199889394 B2
- D6: A. Ronzani, SABIC EUROPE, "Exploiting multilayer flexibility for high performance polyethylene films", Cologne, 25-26 November 2008, PowerPoint presentation
- D7: Conference Flyer "Multilayer Packaging Films 2008"
- D8: A.J. Peacock, Handbook of Polyethylene, Marcel Decker Inc., 2000, preface and pages 16 and 17
- D11: "SABIC's innovative approach in flexible packaging stretches the limits of cost efficiency, down gauging and performance", press release dated 3 December 2008
- D12: Brochure advertising the conference papers ("Multilayer Packaging Films 2008") for purchase after the conference.

IV. The opposition division's decision was based on a main request and auxiliary request 1.

V. Claim 1 of the main request (corresponding to claim 1 as granted) reads as follows:

"A 5 layer film consisting of:

- I. a first layer comprising low density polyethylene,
- II. a second layer comprising high density polyethylene,
- III. a third layer comprising linear low density polyethylene,
- IV. a fourth layer comprising high density polyethylene, and
- V. a fifth layer comprising linear low density polyethylene."

Claims 2 to 4 of the main request are dependent claims.

Claim 5 of the main request is directed to a package for containing products in a compressed condition comprising a 5 layer film according to any one of claims 1 to 4.

VI. Claim 1 of auxiliary request 1 as found allowable by the opposition division differs from claim 1 of the main request in that the feature "wherein the thickness of the 5 layer film ranges between 20 and 60 μm " has been introduced.

VII. The decision of the opposition division may be summarised as follows:

- the invention was sufficiently disclosed;
- the subject-matter of claim 1 of the main request was not novel in view of D1;
- the subject-matter of claims 3 to 5 of the main request was not entitled to the priority;
- the slides shown in D6 were made available to the public in the priority interval and slide 11 of D6 was novelty-destroying for the subject-matter of claims 3 to 5 of the main request;
- the subject-matter claimed in auxiliary request 1 was novel and involved an inventive step in view of D2 as the closest prior art; and
- D1 did not qualify as the closest prior art.

VIII. In its statement setting out the grounds of appeal, the opponent requested that the patent be revoked in its entirety.

IX. In its statement setting out the grounds of appeal dated 1 September 2015, the proprietor requested that the decision under appeal be set aside and that the patent be maintained based on the main request or, alternatively, on the basis of one of auxiliary requests 1 to 16, all requests filed by that letter.

X. As the proprietor and the opponent are appellant and respondent in the respective appeal proceedings, for

simplicity the board will continue to refer to them as the proprietor and the opponent.

XI. With its letter dated 18 January 2016, the opponent filed the following additional documents:

D13: A. Ronzani, SABIC EUROPE, "Exploiting multilayer flexibility for high performance polyethylene films", Cologne, 25-26 November 2008, paper purchased from AMI Conferences

D14: Datasheet for VLDPE - September 2008.

XII. In preparation for the oral proceedings, the board issued a communication giving a preliminary opinion.

XIII. With its letter of 8 May 2019, the opponent filed comments on the preliminary opinion given by the board and requested that auxiliary requests 5 to 16 not be admitted into the proceedings.

XIV. On 2 July 2019, oral proceedings took place before the board. At the end of the oral proceedings, the decision was announced. Both parties maintained their requests as submitted in writing.

XV. The requests of the proprietor, insofar as relevant for the present decision, are the following:

The **main request** is identical to the main request before the opposition division (for claim 1 see point V, above).

Claim 1 of **auxiliary requests 1 to 4** is identical to claim 1 held allowable by the opposition division and differs from claim 1 of the main request in that the

feature "wherein the thickness of the 5 layer film ranges between 20 and 60 μm " has been introduced.

The exact wording of the claims of **auxiliary request 5** is not relevant for this decision.

Claim 1 of **auxiliary request 6** differs from claim 1 of the main request in that the feature "wherein said third layer comprises between 40 and 80 % by weight linear low density polyethylene" has been introduced.

Claim 1 of **auxiliary request 7** differs from claim 1 of auxiliary request 6 in that the third layer is further limited so that it "comprises between 20 and 60 % by weight low density polyethylene and between 40 and 80 % by weight linear low density polyethylene".

Claim 1 of **auxiliary request 8** reads as follows:

"A 5 layer film consisting of:

- I. a first layer comprising low density polyethylene,
- II. a second layer comprising high density polyethylene,
- III. a third layer comprising linear low density polyethylene,
- IV. a fourth layer comprising high density polyethylene, and
- V. a fifth layer comprising linear low density polyethylene,

wherein the film consists of:

- I. a first layer comprising between 60 and 90 % by weight low density polyethylene and

- between 10 and 40 % by weight linear low density polyethylene,
- II. a second layer comprising between 40 and 70 % by weight high density polyethylene and between 30 and 60 % by weight linear low density polyethylene,
- III. a third layer comprising between 20 and 60 % by weight low density polyethylene and between 40 and 80 % by weight linear low density polyethylene,
- IV. a fourth layer comprising between 40 and 70 % by weight high density polyethylene and between 30 and 60 % by weight linear low density polyethylene, and
- V. a fifth layer comprising between 60 and 100 % by weight linear low density polyethylene and between 0 and 40 % by weight low density polyethylene."

Claims 2 and 3 of **auxiliary request 8** correspond to claims 4 and 5 as granted.

- XVI. The arguments of the opponent, insofar as relevant for the present decision, are as follows:
- The subject-matter of claims 3 to 5 of the main request is not entitled to priority.
 - D6 and D13 were made available to the public in the priority interval of the opposed patent and thus form prior art pursuant to Article 54(2) EPC for those claims which are not entitled to the priority.
 - The subject-matter of claim 1 of the main request and auxiliary requests 1 to 4 lacks novelty in view

of D1. Component A and component F as shown in e.g. example 1 of D1 contain an LLDPE.

- The subject-matter of those claims of the main request and auxiliary requests 1 to 4 not entitled to the priority lacks novelty in view of D6 or D13.
- D1 is to be considered as the closest prior art. The subject-matter of claim 1 of auxiliary requests 1 to 4, 7 and 8 does not involve an inventive step in view of D1 alone.
- Auxiliary requests 5 to 16 are divergent from each other and they also diverge from auxiliary request 4. Thus, they should not be admitted into the appeal proceedings.
- Claim 1 of auxiliary request 6 contains added subject-matter.
- The subject-matter of claim 1 of auxiliary requests 7 and 8 does not involve an inventive step in view of D1.

XVII. The arguments of the proprietor, insofar as relevant for the present decision, are as follows:

- The subject-matter of claims 1 to 5 of the main request validly enjoys the claimed priority.
- It has not been sufficiently proven by the opponent that D6 and D13 were made available to the public in the priority interval. Thus, those documents cannot be used as prior art pursuant to Article 54(2) EPC in the present case.

- Component A (the copolymer NOVA 10B) as used in e.g. example 1 of D1 is not an LLDPE. Thus, the subject-matter of claim 1 of the main request is novel in view of D1. The same applies to the subject-matter claimed in the other auxiliary requests.
- D2 is to be considered as the closest prior art in the present case and not D1. The subject-matter of claim 1 of auxiliary requests 1 to 4, 7 and 8 involves an inventive step in view of D2.
- Most of auxiliary requests 5 to 16, except for auxiliary request 5, were already filed in the opposition proceedings and they are converging with respect to the main request. Auxiliary request 16 is based on auxiliary request 7 as filed in the opposition proceedings. Thus, all auxiliary requests should be admitted into the proceedings.
- The subject-matter of claim 1 of each of auxiliary requests 6 and 7 is based on original claim 1 and page 6, lines 1 to 3, of the application as originally filed.
- The subject-matter of claim 1 of auxiliary request 8 is based on original claims 1 and 3.

Reasons for the Decision

MAIN REQUEST (AS FILED ON 1 September 2015)

1. Hereinafter, the board will use the following abbreviations generally accepted in the art:
 - very low density polyethylene (VLDPE),
 - linear low density polyethylene (LLDPE),
 - low density polyethylene (LDPE),
 - high density polyethylene (HDPE).

2. Public availability of D6 and D13
 - 2.1 The opponent *inter alia* raised novelty attacks against the claimed subject-matter on the basis of D6 and D13. D6 is a PowerPoint presentation allegedly shown at a conference on 25-26 November 2008 by the inventor (Mr Ronzani), i.e. within the priority interval. D13 is a copy of the Ronzani PowerPoint presentation that the opponent allegedly purchased from the conference organisers in 2015. The advertisement D12 allegedly demonstrated that D13 had been made available to the public in the priority interval as well. D6 and D13 include a slide (slide 11) showing exactly the 5 layer film of example I of the opposed patent. According to the opponent, D6 and D13 were novelty-destroying prior art for all those claims of the patent allegedly not entitled to the priority.

Since D6 and D13 were intermediate documents, it needs to be assessed whether it has been sufficiently proven that they were indeed publicly available.

2.2 D6 - oral disclosure

As evidence that the content of D6 was made available to the public at the conference, the opponent submitted D7 and D11. D7 is a pre-conference advertisement with respect to the conference "Multilayer Packaging Films 2008" (25-26 November 2008). D11 is a press release from SABIC EUROPE dated 3 December 2008, which includes the following passage:

"Alberto Ronzani - Technical Marketing Engineer SABIC Europe - explains: "We believe that future innovation within flexible packaging will be mainly realized by solutions based on the right combination of the existing resins, rather than by new, single, enhanced resins." An example of this is the multi-layers film concepts with up to five layers. With down gauging options that run up to 20% thickness reduction, a smart resin combination is not only reducing the manufacturing costs significantly, but is also revealing new possibilities concerning performance and sustainability. The multi-layers film concepts up to five layers are developed for a various range of flexible packaging. SABIC applied these concepts successfully to diaper compression, stand up pouches and lamination film. Ronzani presented recently this whole new approach including several challenging examples at the AMI Multi-layer Packaging Films 2008 event in Cologne (25th until 26th November, 2008)." (emphasis added)

Thus, D11 demonstrates that Mr Ronzani gave a talk on multilayer films at that conference. However, in the absence of a declaration from an independent member of the audience at said conference on the actual content of Mr Ronzani's talk, it has not been sufficiently

proven that indeed all slides of D6, and in particular slide 11, were shown at the conference. D11 merely demonstrates that said conference took place and that Mr Ronzani presented new multilayer films for diaper compression. However, D11 cannot prove that a film falling within the scope of claim 1 was made available to the public at the conference.

Thus, in the boards view it has not been sufficiently proven by the opponent that D6 (in particular slide 11) was made available to the public in the priority interval. Thus, D6 cannot be used for attacking the novelty of those claims which allegedly do not validly claim the priority.

2.3 D13 - written disclosure

In a second independent novelty attack the opponent relied on D13, a copy of the Ronzani PowerPoint presentation, that it allegedly purchased from the conference organisers in 2015. As evidence that D13 was already publicly available in the priority interval, the post-conference document D12 was submitted, in which copies of the presentations given at the relevant conference were offered for purchase. According to the opponent, the dates mentioned in D12 sufficiently proved the public availability of D13 in the priority interval.

The passage "AMI Conferences is pleased to announce that the proceedings from Multilayer Packaging Films 2008 conference have now been published" (emphasis added) on page 1 of D12 in combination with the text passages "Forthcoming events organised by Applied Market Information" and "Pipeline Coating 2009 ... 26-28 January 2009" (emphasis added)

on page 3 of D12 and the passage "To purchase copies of the newly released Multilayer Packaging Films 2008 proceedings, simply print out this leaflet, fill out the enclosed order form and fax it back to us" on page 1 of D12 render it plausible that copies of the presentation ("Multilayer Packaging Films 2008 proceedings") were offered for purchase in the priority interval.

However, it has not been sufficiently proven by the opponent that D13 is exactly what was offered for purchase in D12. D13 does not have a publication date and no introductory part which might confirm that it is a post-published conference paper reflecting exactly what was orally disclosed at the conference.

Furthermore, the opponent has not provided any information with respect to the circumstances of the purchase of D13 in 2015, i.e. many years after the conference took place. In this context, the opponent mentioned that D13 was sent to them in that form, but it is conspicuous to the board that the opponent has not provided any confirmation concerning the order or the payment or any accompanying e-mail to support the attack based on D13. In the absence of such additional documentation, there is no evidence for a direct link between D12 and D13. Thus, it has not been proven that D13 is exactly what was offered for purchase in D12.

In summary, it has not been sufficiently proven by the opponent that D13 was made available to the public in the priority interval, so D13 also cannot be used for attacking the novelty of the subject-matter of those claims which allegedly do not validly claim the priority.

2.4 Since no other prior-art documents having a publication date in the priority interval were cited, a discussion as to whether all claims enjoy priority is not necessary.

3. Novelty

3.1 In addition to the novelty attacks based on D6 and D13, the opponent argued that example 1 of D1 was novelty-destroying for the 5 layer film of claim 1 of the main request.

3.2 D1 relates to multilayer, biaxially stretched, flexible, thermoplastic films for packaging purposes. Example 1 of D1 discloses a 5 layer film, in which:

the first layer (I) comprises a component D including LDPE,

the second layer (II) comprises a component B being HDPE,

the third layer (III) comprises a component F including LLDPE,

the fourth layer (IV) comprises a component B being HDPE, and

the fifth layer (V) comprises a component F including LLDPE.

Thus, example 1 of D1 explicitly discloses all the polyethylenes required in the respective five layers of the film of claim 1.

3.3 Due to the breadth of claim 1, only a minimal amount of the respective polyethylenes needs to be present in each of the five layers of the film in order to fall within the scope of claim 1. Although component F, which essentially consists of LLDPE, is present in the

third and the fifth layer of example 1 only in an amount of 3 and 1 % by weight, respectively, the requirement of the third and fifth layer of claim 1, i.e. "comprising LLDPE", is met.

3.4 Thus, the subject-matter of claim 1 of the main request is not novel in view of example 1 of D1.

AUXILIARY REQUEST 1

4. Novelty

4.1 The opponent argued that example 1 of D1 (mentioning a total film thickness of 15 μm) read in combination with claim 1 of D1 (mentioning a total film thickness of 50.8 μm or less) or col. 4, lines 9 to 13 (mentioning a total film thickness of 25.44 μm or less), had to be considered as being novelty-destroying for the subject-matter of claim 1 of auxiliary request 1, too.

4.2 Example 1 of D1 discloses a total film thickness of 15 μm , whereas claim 1 requires a thickness of 20 to 60 μm . The opponent is correct in saying that D1 also mentions total film thicknesses of 50.8 μm or less and 25.44 μm or less, respectively. However, the combination of two separate passages (i.e. example 1 combined with either claim 1 or col. 4) within a document - without any pointer to such a combination, in particular including all the other features of example 1 - is not admissible in the assessment of novelty.

4.3 Thus, the subject-matter of claim 1 is novel in view of D1. The same applies *mutatis mutandis* to dependent

claims 2 to 4 and to claim 5 which is directed to a package and refers back to any one of claims 1 to 4.

5. Inventive step

5.1 There was disagreement among the parties as to whether D1 (opponent) or D2 (proprietor) was to be taken as the closest prior art.

5.2 It is established case law of the boards of appeal that the closest prior art for assessing inventive step is normally a prior-art document disclosing subject-matter conceived for the same purpose or aiming at the same objective as the claimed invention and having the most relevant technical features in common. Furthermore, the technical problem to be solved should normally start from the technical problem that is described in the patent in suit. Only if it turns out that an incorrect state of the art was used to define the technical problem or that the technical problem disclosed has in fact not been solved, can an inquiry be made as to which other technical problem objectively existed (e.g. T 0495/91, reasons 4.2).

5.3 The technical problem mentioned in paragraph [0008] of the patent is as follows:

"It is an object of the present invention to provide a multilayered film which has improved raw material efficiency while fulfilling all technical requirements for its use as packaging film. In case of savings in amount of packaging material these savings should not result in a lower quality product. Furthermore the requirements for a good protection of the packaged products should still be met." (emphasis added)

In paragraph [0010] of the patent, it is indicated that the 5 layer packaging film according to the invention results in a packaging having excellent sealing properties in combination with an excellent puncture resistance, tear propagation resistance, creep and resistance to expansion pressure. Furthermore, it can be taken from paragraph [0015] that down gauging improvement is obtained while maintaining the required performance regarding for example sealability, puncture resistance and processing characteristics.

In the board's view, the objectives and desired effects mentioned in paragraphs [0008], [0010] and [0015] of the patent need to be taken into consideration as selection criteria in determining the appropriate closest prior-art document in the present case.

- 5.4 In this context, the proprietor argued that D1 was not the closest prior art, since unlike D2, it did not relate to films for packaging products in a compressed condition. In addition, a biaxially stretched shrinkable film according to D1 would not be suitable for compression packaging. Thus, D1 did not relate to the same technical field and could not be the closest prior art. In essence, the proprietor was of the opinion that D2 was closer to the intended use mentioned in the opposed patent.

In the board's view the similarity of the (most) preferred intended use of packaging products in a compressed condition (as for instance mentioned in claim 5 of the patent) - which is not reflected by any technical feature in claim 1 - cannot be taken as the sole selection criterion in determining the closest prior art.

Moreover, paragraph [0008] of the patent (mentioning the problem to be solved) merely refers to the use as a packaging film in general, and claim 1 is directed to a film as such without any particular structural limitation or any indication of a specific intended use.

D1 does relate to biaxially stretched shrinkable films. However, given the extreme breadth of claim 1, those types of films are considered to be envisaged by claim 1. Thus, the board does not share the proprietor's view that the film according to D1 relates to a completely different technical field.

- 5.5 The opponent also pointed out that D1 mentions the importance of puncture resistance, the problem of providing multilayer thin films (which is similar to down gauging), high tear strength and high strength fusion bonds (which relates to good sealing properties), so the opposed patent and D1 have many aspects in common.

The board shares the opponent's view in this respect, since the technical problem of providing a multilayer thin film (col. 3, lines 45 to 47, of D1) is indeed similar to down gauging (see paragraph [0015] of the opposed patent), i.e. saving material. High tear strength and tear propagation resistance are different but not unrelated. Providing a heat sealable film capable of forming high strength fusion bonds (see col. 3, lines 54 and 55, of D1) is similar to excellent sealing properties (see paragraph [0010] of the opposed patent). Excellent heat-sealability is also explicitly mentioned in col. 5, line 5, of D1.

5.6 In summary, some of the intended properties and the problem to be solved in both D1 and the opposed patent are at least similar. Although D1 does not explicitly mention that the film is suited for packaging products in a compressed condition, the board is of the opinion that D1 is not so remote from the opposed patent that a skilled person would not have taken it into consideration, particularly in view of the technical problem to be solved and the desired properties to be achieved.

In view of the extreme breadth of claim 1 and the absence of any feature directed to or associated with the intended use of packaging products in a compressed condition, the board decided that D1 qualifies as an appropriate starting point in the discussion of inventive step in the present case.

5.7 When starting from D1 as the closest prior-art document, the film according to example 1 of D1 is an appropriate embodiment for identifying the differences in view of the claimed subject-matter. The opponent already used the film of example 1 of D1 for its novelty attack against claim 1 of the main request.

The film of example 1 of D1 differs from the claimed film of auxiliary request 1 in that it has a thickness of 15 μm , whereas claim 1 requires a thickness of 20 to 60 μm .

There are no comparative data on file which could demonstrate an effect resulting from said difference. Numerous advantageous properties are mentioned in paragraph [0074] in the context of example I of the opposed patent. However, these advantageous properties are attributed to a film which has much stricter

restrictions on the compositions of the layers than a film according to claim 1 of auxiliary request 1. It is simply not credible that those properties solely result from a different film thickness. Thus, no technical effect resulting from the distinguishing feature in view of D1 can be acknowledged.

Therefore, the objective technical problem is to provide an alternative 5 layer film.

5.8 As already mentioned above, D1 discloses a total film thickness of 50.8 μm or less in claim 1 and a preferred film thickness of 25.44 μm or less in col. 4, lines 9 to 13. Thus, D1 itself explicitly envisages a film thickness up to 50.8 μm , preferably up to 25.44 μm . A skilled person trying to provide an alternative to the film disclosed in example 1 of D1 would contemplate a thickness range as disclosed in e.g. claim 1 of D1 and arrive at an embodiment falling within the scope of claim 1 of auxiliary request 1.

5.9 In summary, the subject-matter of claim 1 of auxiliary request 1 does not involve an inventive step in view of D1 alone. Therefore, auxiliary request 1 is not allowable.

AUXILIARY REQUESTS 2 TO 4

6. Claim 1 of auxiliary requests 2 to 4 is identical to claim 1 of auxiliary request 1. Thus, these auxiliary requests are not allowable for the same reason as auxiliary request 1.

7. Admission of auxiliary requests 5 to 8
- 7.1 The opponent requested that auxiliary requests 5 to 8, among others, not be admitted into the proceedings.
- 7.2 Auxiliary requests 6 to 8 were already filed during the opposition proceedings (only their numbering has changed in appeal); auxiliary request 5 was filed for the first time in appeal. The proprietor did not explain in its written submissions why auxiliary requests 5 to 8 overcame the objections raised by the opponent, in violation of Article 12(2) RPBA. In the board's view this speaks in particular against the admission of auxiliary request 5 which is a new request on appeal. Since, however, auxiliary requests 6 to 8 were already filed in the opposition proceedings, the board saw no compelling reason not to admit these requests.
- 7.3 In view of the above, the board decided not to admit auxiliary request 5 into the proceedings and to admit auxiliary requests 6 to 8 (Article 12(4) RPBA).

AUXILIARY REQUEST 6

8. Article 123(2) EPC
- 8.1 The opponent objected that the subject-matter of claim 1 did not meet the requirements stipulated in Article 123(2) EPC since there was no basis for the added feature "wherein said third layer comprises between 40 and 80 % by weight linear low density polyethylene" in the application as filed.

8.2 Page 6, lines 1 to 3, of the application as filed, the only passage the proprietor relied upon as a possible basis for the amendment to claim 1, reads as follows:

"Preferably the third layer comprises between 20 and 60 % by weight low density polyethylene and between 40 and 80 % by weight linear low density polyethylene". (emphasis added)

8.3 This passage provides no basis for isolating the feature "the third layer comprises between 40 and 80 % by weight linear low density polyethylene" as introduced into claim 1 out of its context. It is evident that the passage discloses said feature in combination with the feature "between 20 and 60 % by weight low density polyethylene". Therefore, omitting the latter feature represents an unallowable intermediate generalisation and thus leads to added subject-matter.

8.4 Thus, claim 1 violates the requirements stipulated in Article 123(2) EPC, so that auxiliary request 6 is not allowable.

AUXILIARY REQUEST 7

9. Inventive step

9.1 Compared with claim 1 of the main request (point V, above), claim 1 of auxiliary request 7 has been further limited in that the third layer "comprises between 20 and 60 % by weight low density polyethylene and between 40 and 80 % by weight linear low density polyethylene".

9.2 For the reasons outlined with respect to auxiliary request 1, D1 is still considered to be an appropriate starting point for the assessment of inventive step of the film of claim 1 of auxiliary request 7.

9.3 In relation to the amended claim, the opponent started from the 5 layer film of example 4 of D1 as the closest embodiment for identifying the differences over D1. The third and fifth layers of this example comprise a component A, namely the C₂C₈-copolymer NOVA 10B having a density of 912 kg/m³.

There was disagreement among the parties as to whether the C₂C₈-copolymer NOVA 10B was an LLDPE (the opponent's view) or a VLDPE or even not a linear polyethylene at all (the proprietor's view).

Thus, it first has to be assessed whether NOVA 10B (i.e. component A) is an LLDPE within the meaning of the opposed patent.

9.4 Claim 1 does not require a certain density for LLDPE. In paragraph [0067] of the patent, it is stated that "the density of LLDPE in the present invention is above 915 kg/m³". However, according to paragraph [0056], the density of the LLDPE is only preferably above 915 kg/m³. Thus, the patent itself does not give a clear and unambiguous definition as regards the density of LLDPE.

According to D8, a polymer handbook, the lower limit for the density of LLDPE is 900 kg/m³. Thus, there appears to be no harmonised, generally accepted definition as regards the density of LLDPE. In view of the different definitions for the density of LLDPE in the patent itself and in D8, a density above 915 kg/m³

cannot be read as an inherent limitation to the LLDPE referred to in claim 1. Consequently, a density of 912 kg/m^3 as indicated for NOVA 10B of example 4 of D1 would be considered by the skilled reader to be within the limits of LLDPE.

In view of the vague density definition for LLDPE there appears to be no clear distinction between LLDPE and VLDPE at a density around 900 kg/m^3 to 915 kg/m^3 . Thus, the board also cannot accept the proprietor's argument that NOVA 10B is a VLDPE and not an LLDPE.

In this context, the proprietor even questioned whether the C_2C_8 -copolymer NOVA 10B was a linear polyethylene at all, but at the same time could not explain what a C_2C_8 -copolymer with a density of 912 kg/m^3 could be other than a linear polyethylene. At best, NOVA 10B could be seen as a VLDPE in the sense of D1 (see the density requirements mentioned in col. 1, lines 28 to 33, of D1), which, as explained above, provides no distinction at a borderline density of 912 kg/m^3 . In any case, it is commonly accepted in the field of polymers that VLDPE and LLDPE are both substantially linear polyethylenes, as apparent for instance from D14 for VLDPE.

Thus, the board considers that the copolymer NOVA 10B (i.e. component A) having a density of 912 kg/m^3 is an LLDPE within the meaning of the opposed patent.

- 9.5 When starting from example 4 of D1 for the assessment of inventive step, the claimed subject-matter differs from example 4 in that in the third layer (i) the amount of LLDPE is too high (claim 1 requires 40 to 80 % by weight) and (ii) the amount of LDPE is too low (claim 1 requires 20 to 60 % by weight).

The third layer of example 4 of D1 contains 87 % by weight of component A, 3 % by weight of component F and 10 % by weight of component I. Component A consists of NOVA 10B, which is LLDPE, as explained in point 9.4 above, and component F consists essentially of LLDPE (95.75 %). Thus, the total amount of LLDPE in the third layer of example 4 is about 89.9 % by weight (87 % by weight (component A) + 2.9 % by weight (component F)). The amount of LDPE in the third layer is about 9.5 % by weight, which comes from component I.

9.6 The proprietor argued that the claimed film achieves the improved properties mentioned in paragraph [0074] of the patent and that there is no teaching in D1 as to how those advantageous properties could be obtained. However, the board does not share the proprietor's view in this respect since it is not credible that the advantageous properties mentioned in paragraph [0074] of the patent result from the difference in the third layer. If anything, those advantageous properties are credible for a 5 layer film in line with example I of the patent. Thus, no particular effect over D1 has been shown.

Thus, the objective technical problem can be merely considered to be providing an alternative 5 layer film.

9.7 As disclosed by D1, the (core) layer (b) may comprise at least 45 % by weight, preferably at least 60 % by weight of a copolymer of ethylene and at least one C₃-C₁₀ α -olefin (see claim 1 or col. 4, lines 27 to 33, of D1), which includes the LLDPE NOVA 10B (component A). D1, col. 10, lines 13 to 19, further discloses that each layer may comprise up to 20 % by weight of LDPE. Consequently, D1 itself already envisages lowering the

amount of LLDPE (from 89.9 % by weight in example 4 of D1 to 80 % by weight or lower) and increasing the amount of LDPE (from 9.5 % by weight in example 4 of D1 to 20 % by weight), meaning that it is an obvious measure for a skilled person trying to find an alternative film.

Thus, the subject-matter of claim 1 does not involve an inventive step in view of D1 alone, so auxiliary request 7 is not allowable.

AUXILIARY REQUEST 8

10. Inventive step

10.1 Compared with claim 1 of the main request, claim 1 of auxiliary request 8 has been amended by incorporating claim 3 so that the polymer composition of each layer is now precisely defined (see point XV, above). The opponent's only objection against auxiliary request 8 was that the subject-matter of claim 1 lacked an inventive step.

10.2 The opponent contested that an effect over D1 (example 4), which it still considered to be the closest prior art, had been shown. According to the opponent, D1 clearly taught the composition of all the layers of the claimed film, except for the first layer. However, increasing the amount of LDPE in the first layer to 60 % by weight or above was merely an obvious modification for a skilled person which could not support the presence of an inventive step in view of D1.

10.3 The board cannot agree with the opponent that the only significant difference between example 4 of D1 (having

about 13 % by weight of LDPE in the first layer) and the claimed 5 layer film is a higher amount of LDPE in the first layer (60 to 90 % by weight). In fact, a multiple selection in D1 with respect to the specific polymers and their amounts in each layer would have been necessary in order to arrive at an embodiment falling within the scope of claim 1. However, there is nothing in D1 that hinted at a disclosure of such a combination of features.

Moreover, the board is of the opinion that a 5 layer film (as defined in claim 1) cannot be simply assessed layer by layer, while disregarding the interaction between the layers, to come to the conclusion that the modification in each individual layer might be a routine modification. Rather, the combination of all features of claim 1 together, including the specific blend of polymers, their amounts in each layer and the interaction of all the layers, contributes to the desired properties of the claimed film.

The composition of the 5 layer film disclosed in example I of the patent is very close to the specific compositions now required for each layer. Therefore, and in contrast to auxiliary request 7, it is now credible that the numerous advantageous properties listed in paragraph [0074] for example I equally apply to the whole range now claimed, which in fact is rather narrow. The listed properties actually confirm that the film is well suited for packaging compressible products in a sealed condition.

10.4 In the absence of appropriate comparative data, it cannot be concluded that the claimed 5 layer film achieves improved properties compared with the film of example 4 of D1. Nevertheless, the objective technical

problem in view of D1 is considered to be providing a further multilayer film having the advantageous properties mentioned in paragraph [0074] of the patent and which is suited for packaging compressible products in a sealed condition.

The board has no doubts that this problem has been solved by the film as defined in claim 1.

- 10.5 D1 does not provide any teaching that those effects could be achieved by the specific combination of features as defined in claim 1 (including the specific blend and the amounts of the specific polymers in each layer). Furthermore, there is no suggestion in D1 that such a specifically defined film would be well suited for packaging compressible products in a sealed condition.

In view of the above, the subject-matter of claim 1 of auxiliary request 8 involves an inventive step in view of D1 alone. The same applies *mutatis mutandis* to dependent claim 2 and claim 3 which is directed to a package comprising the film according to claim 1 or claim 2.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent with the following claims and a description to be adapted thereto:

Claims 1 to 3 of auxiliary request 8 filed by letter of 1 September 2015.

The Registrar:

The Chairman:



L. Malécot-Grob

W. Sieber

Decision electronically authenticated