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**Datasheet for the decision  
of 30 March 2022**

**Case Number:** T 2920/18 - 3.3.03

**Application Number:** 13731746.7

**Publication Number:** 2864374

**IPC:** C08F10/02, C08L23/06, C08J5/18

**Language of the proceedings:** EN

**Title of invention:**  
FILM COMPOSITION

**Patent Proprietor:**  
Ineos Europe AG

**Relevant legal provisions:**  
EPC Art. 54, 56, 100(b)  
RPBA 2020 Art. 13(2)

**Keyword:**

Grounds for opposition - insufficiency of disclosure (yes: main request; no: auxiliary request)  
Novelty - auxiliary request (yes)  
Inventive step - auxiliary request (yes)  
Amendment after summons - taken into account (yes and no) -  
deletion of claims - exceptional circumstances (yes)

**Decisions cited:**

G 0001/92, J 0014/19, T 0122/84, T 0435/91, T 0951/91,  
T 1833/14, T 1294/16, T 1569/17, T 0494/18, T 1598/18,  
T 2091/18, T 2988/18, T 0339/19, T 0247/20

**Catchword:**

Amendment of a set of claims by deletion of claims. Admittance of said amended set of claims pursuant to Article 13(2) RPBA 2020: see points 3.1 to 3.16 of the Reasons for the Decision.



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Case Number: T 2920/18 - 3.3.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.03**  
**of 30 March 2022**

**Appellant:**

(Opponent)

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**Respondent:**

(Patent Proprietor)

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**Decision under appeal:**

**Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
1 October 2018 concerning maintenance of the  
European Patent No. 2864374 in amended form.**

**Composition of the Board:**

**Chairman** D. Semino  
**Members:** O. Dury  
W. Ungler

## Summary of Facts and Submissions

I. The appeal of the opponent is against the interlocutory decision of the opposition division concerning maintenance of European Patent No. 2 864 374 in amended form according to the claims of the first auxiliary request filed with letter of 11 July 2018 and a description adapted thereto.

II. The following documents were *inter alia* cited in the decision under appeal:

D1: WO 2006/018245

D3: EP 1 712 574 A1

D5: ASTM D1922-15

D6: D. Godshall et al., *Polymer*, 2003, 44,  
pages 5397-5406

D7: J. Suwanprateeb et al., *J. Porous Mater.*, 2012,  
19, pages 623-632

D17: *Polymer textbook*, 2009, item 4.8.1

III. In that decision, which was based on the patent as granted as main request and on the first auxiliary request filed with letter of 11 July 2018, the following conclusions were *inter alia* reached:

- The main request satisfied the requirements of sufficiency of disclosure but the subject-matter of claim 1 as granted was anticipated by the commercial product "Thaizex 7000F";
- The first auxiliary request was admitted into the proceedings and the subject-matter of claim 1 thereof was novel over the commercial product

"Thaizex 7000F". In addition, the subject-matter of claims 1 and 3 of the first auxiliary request was inventive when starting from either comparative example C6 of the patent in suit, "comparative example C3 of D1", examples 2 or 7 of D1 or example 5 of D3 as closest prior art.

For these reasons, the patent amended on the basis of the first auxiliary request was held to meet the requirements of the EPC.

- IV. The opponent (appellant) appealed against the above decision.
  
- V. With its rejoinder to the statement of grounds of appeal, the patent proprietor (respondent) requested that the appeal be dismissed (main request) or, in the alternative, that the patent be maintained in amended form according to any of the second or third auxiliary requests filed therewith. Also, the following document was filed:  
  
Annex 1: additional examples 3 to 7
  
- VI. The parties were summoned to oral proceedings and a communication indicating specific issues to be discussed at the oral proceedings was sent to the parties.
  
- VII. With letter of 18 January 2022 the respondent filed a new first auxiliary request in replacement of all auxiliary requests previously pending.
  
- VIII. A better readable version of D17 was filed by the appellant with letter of 18 January 2022.

IX. With letter of 8 February 2022 the appellant filed the following documents:

D20: Declaration of M. Abbasi, dated  
2 February 2022

D21: Prediction of melt flow rate (MFR) of bimodal polyethylene's based on MFR of their components, B. Hagström, *in* The Polymer Processing Society, Extended Abstracts & Final Programme, Conference of Polymer Processing, Gothenburg, Sweden, 19-21 August 1997,

D22: Handbook of polyethylene, A.J. Peacock, 2000, page 9

X. Oral proceedings were held on 30 March 2022 in the presence of both parties (videoconference).

XI. **The final requests of the parties were as follows:**

(a) The appellant requested that the decision of the opposition division be set aside and that the patent be revoked.

(b) The respondent requested that the appeal be dismissed (main request) or, in the alternative, that the patent be maintained in amended form according to the first auxiliary request filed with letter of 18 January 2022.

XII. Claims 1 to 3 and 11 of the **main request** read as follows:

"1. Film formed from a polyethylene composition having a density of 948-956 kg/m<sup>3</sup>, a high load melt index HLMI of 7-15, a melt storage modulus G' at a dynamic frequency where the loss modulus G'' = 3000Pa,

G' (G" = 3000) of 1400-1800 Pa, and a value of Mz/ G' (G" = 3000) of at least 900 Da/Pa, where Mz is z-average molecular weight."

"2. Film according to claim 1, which has a relationship between transverse direction tear strength of a 15µm film (T<sub>TD</sub> in g/25µm) and dart drop impact resistance of a 15µm film (I in g) represented by T<sub>TD</sub> > 62000/I."

"3. Film formed from a polyethylene composition having a density of 948-956 kg/m<sup>3</sup>, an HLMI of 7-15 and a melt storage modulus G' at a dynamic frequency where the loss modulus G" = 3000Pa, G' (G" = 3000) of 1400-1800 Pa, said film having a relationship between transverse direction tear strength of a 15µm film (T<sub>TD</sub> expressed in g/25µm) and dart drop impact resistance of a 15µm film (I, expressed in g) represented by T<sub>TD</sub> > 62000/I".

"11. Film according to any preceding claim, which has a dart drop value of more than 270, preferably more than 310, when the film has a thickness of 15µm and is extruded with a die diameter of 100mm, a die gap of 1.2mm, a blow-up ratio BUR of 4, a neck height of 7 x die diameter and a take-up speed of 30m/min."

While claims 4 and 5 of the main request were dependent on above claim 3, claims 6 to 10, 12 and 13 were dependent on "any preceding claims".

- XIII. The **first auxiliary request** corresponded to the main request in which claims 2 to 5, 12 and 13 were deleted.
- XIV. The appellant's arguments, in so far as they are pertinent, may be derived from the reasons for the

decision below. They are essentially as follows:

- (a) Claims 1 to 3 and 11 to 13 of the main request did not meet the requirements of sufficiency of disclosure.
- (b) The first auxiliary request should not be admitted into the proceedings (Article 13(2) RPBA 2020).
- (c) Documents D20 to D22 should be admitted into the proceedings (Article 13(2) RPBA 2020).
- (d) The subject-matter of claim 1 of the first auxiliary request was not novel over the commercial product "Thaizex 7000F".
- (e) The subject-matter of claim 1 of the first auxiliary request was not inventive when starting from any of the following disclosure as closest prior art, optionally in combination with D17:
  - Comparative examples C6 or C3 of the patent in suit;
  - Examples 2 or 7 of D1;
  - Example 5 of D3.

XV. The respondent's arguments, in so far as they are pertinent, may be derived from the reasons for the decision below. They are essentially as follows:

- (a) In view of the teaching of the patent in suit and of common general knowledge the claims of the main request met the requirements of sufficiency of



disclosure.

- (b) In the present case, it was justified that the first auxiliary request be admitted into the proceedings (Article 13(2) RPBA 2020).
- (c) Documents D20 to D22 should be not admitted into the proceedings (Article 13(2) RPBA 2020).
- (d) The commercial product "Thaizex 7000F" did not anticipate the subject-matter of claim 1 of the first auxiliary request.
- (e) The subject-matter of claim 1 of the first auxiliary request was inventive in the light of any of the closest prior art disclosures relied upon by the appellant, even in combination with D17.

## **Reasons for the Decision**

### **Main request**

1. Subject-matter claimed

The subject-matter of claims 1 to 3 of the main request is defined using various parameters which are acknowledged in the present decision as follows:

**Independent claim 1** is directed to a film formed from a polyethylene composition having the following parameters:

- P1: density of 948-956 kg/m<sup>3</sup>;

- P2: high load melt index HLMI of 7-15;
- P3: melt storage modulus  $G'$  at a dynamic frequency where the loss modulus  $G'' = 3000\text{Pa}$ ,  $G'(G''=3000)$  of 1400-1800 Pa, and
- P4:  $M_z/G'(G''=3000)$  of at least 930 Da/Pa, where  $M_z$  is z-average molecular weight.

**Claim 2**, dependent on claim 1, defines that the film further has the following feature:

- P5: relationship between transverse direction tear strength of a 15  $\mu\text{m}$  film ( $T_{TD}$ , expressed in g/25  $\mu\text{m}$ ) and dart drop impact resistance of a 15  $\mu\text{m}$  film ( $I$ , expressed in g) represented by  $T_{TD} > 62000/I$ .

**Independent claim 3** is directed to a film formed from a polyethylene composition having the following parameters:

- P1 to P3 as defined in claim 1 above;
- P5 as defined in claim 2 above

2. Article 100(b) EPC

2.1 In order to meet the requirements of sufficiency of disclosure, an invention has to be disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person without undue burden on the basis of the information provided in the patent specification and, possibly, common general knowledge. This means in particular in the present case that the skilled person should be able to prepare a film

according to any of claims 1 to 3 or 11 to 13, which was objected to by the appellant.

## 2.2 Regarding claim 1

2.2.1 The appellant argued that the requirements of sufficiency of disclosure were not met because the polyethylene composition according to comparative example A of D1, which corresponded to comparative example C3 of the patent in suit (see paragraph 86 of the patent in suit), could not be made into a film according to operative claim 1.

2.2.2 However, it was not contested that the composition according to said comparative example C3 has a HLMI of 6 (table 2 of the patent in suit), which is outside the range defined in operative claim 1 (feature P2 defined above imposes a HLMI of 7-15). There is no evidence on file showing that there would be any difficulty in forming a film from a compositions as defined in operative claim 1 and having a HLMI in the lower end of the range defined by feature P2 (e.g. HLMI of 7). Under such circumstances, the appellant's objection fails to convince.

## 2.3 Regarding claims 2 and 3

2.3.1 The films according to claims 2 and 3 are characterised by a combination of structural features related to the definition of the polyethylene composition to be used to prepare them (see features P1, P2, P3 and P4 - the latter being only relevant for claim 2 - defined above), with the additional functional feature P5 (relationship between  $T_{TD}$  in g/25  $\mu\text{m}$  and I). Regarding the latter (P5), the appellant argued that claims 2 and 3 required tear strength of a 15  $\mu\text{m}$  film to be

converted into a  $T_{TD}$  value in g/25  $\mu\text{m}$  but that there was no teaching in the patent how this shall be done, which amounted to a lack of sufficiency of disclosure.

a) In that respect, it remained undisputed, in particular at the oral proceedings before the Board, that the patent in suit does not provide any information regarding how that conversion should be done (in paragraph 75, it is merely indicated that the values reported in the examples were "expressed in g/25  $\mu\text{m}$ ").

b) It was further neither shown by the respondent that such a conversion could be done using a common procedure and/or that the skilled person could rely on common general knowledge to compensate the apparent lack of information of the patent in suit in that respect. In particular, no evidence in that sense was provided in reaction to the Board's communication in which said issue was explicitly identified (section 6.3.1.b).

c) To the contrary, it is known in the art that there is generally no direct, linear relationship between tearing force and specimen thickness (see ASTM standard test method D5: section 4.5, first sentence). This finding is further supported by figure 10 of D6, which shows that the relation  $T_{TD}$  versus thickness varies depending on both the processing conditions (different frost line heights - a parameter characterising the process of making blown films as indicated in the first paragraph of section 2 on page 5399 and illustrated in Figure 8 on page 5404 of D6 - for a given resin, either HDPE A or HDPE B) and the type of polymer (HDPE A vs. HDPE AB). In addition, the relation  $T_{TD}$  versus thickness shown in figure 10 of D6 cannot be held to be

"essentially linear" - as argued by the respondent - in the range of 10-30  $\mu\text{m}$  thickness (i.e. encompassing the thicknesses of 15  $\mu\text{m}$  and 25  $\mu\text{m}$  which are of interest here) for any processing conditions. Also, even if one were to consider that said variation were "essentially linear" for given processing conditions, figure 10 of D6 further shows that different linear correlations would have to be considered depending on the type of polymer and/or processing conditions, as may be seen from the different slopes and different intercepts derivable from figure 10 of D6, both for a given HDPE under various processing conditions and for different HDPE.

c) The respondent put forward that the skilled person could do a simple linear conversion on the basis of the thickness relation (i.e. using a factor of 25/15). However, there is no indication in that sense in the patent in suit. Also, such a measure was neither shown to be supported by common general knowledge, nor can it be held to be generally valid in view of D5 and/or D6 (see preceding paragraph). In addition, no evidence supporting such common general knowledge was submitted by the respondent in reaction to the Board's communication in which said issue was explicitly indicated (sections 6.3.1.b, first paragraph and 6.3.1.c).

d) In view of the above, it is concluded that essential information is missing in order for the skilled person to be able to determine reliably feature  $T_{TD}$  in  $g/25 \mu\text{m}$  indicated in operative claims 2 and 3. Further considering that the respondent has deliberately defined the subject-matter of operative claims 2 and 3 by the way of an - in view of the evidence on file - unusual parameter and using a conversion method which

was not shown to be commonly used in the art, it would have been its duty to provide full information how said conversion should be done. Since, as explained above, that requirement is in the present case not satisfied, there is a fundamental lack of technical information concerning the determination method of the feature  $T_{TD}$  in  $g/25 \mu m$  mentioned in operative claims 2 and 3, so that it is not possible to know what measures have to be taken to produce a film as claimed as it is not possible to verify whether a film having the property as claimed is indeed obtained. This amounts to a lack of sufficient disclosure.

e) Under these circumstances, the lack of information of the patent in suit in that respect does not merely result in the claims having an unclear scope (i.e. it is not solely related to clarity) but it effectively neither allows the skilled person to determine feature P5, nor to assess whether that feature is met in the prior art (wherein not only different polyethylenes but also different processing conditions may be used). For that reason, the Board concludes that such a lack of information effectively amounts, in the present case, to a lack of sufficiency of disclosure.

2.3.2 In view of the above considerations in respect of feature P5, claims 2 and 3 do not meet the requirements of sufficiency of disclosure. As a consequence, there is no need for the Board to deal with the further objections of lack of sufficiency against these claims.

2.4 Regarding claim 11

2.4.1 The appellant argued that claim 11 was not enabled over its whole scope. In particular, it amounted to a "result to be achieved" but it was not possible to

identify on the basis of the information provided in the patent in suit and/or common general knowledge compounds other than those specifically mentioned as bringing about the desired effects. Reference was further made to decision T 435/91 (OJ EPO 1995, 188).

- 2.4.2 However, the Board considers that to obtain a film as defined in claim 11, the skilled person has, in view of the back reference "according to any preceding claim" mentioned therein, to use a composition defined in said preceding claims. In that respect, information is provided in the patent in suit how such compositions can be prepared (paragraphs 8, 27-44, 52-64, examples 1-2) and no evidence was provided that the skilled person would have any difficulty to do so. Under these circumstances, and contrary to the case underlying T 435/91 (see last paragraph of section 2.2.1 of the reasons), the Board is satisfied that the patent in suit does contain information regarding how to prepare a film as defined in claim 11, in particular in as far as it depends on operative claim 1.

In addition, the appellant's objection is not supported by any evidence e.g. showing that working according to the teaching of the patent in suit does not lead to the subject-matter being claimed. In that respect, it is derivable from Table 2 of the patent in suit that comparative example C7 of the patent in suit, which was relied upon by the appellant, at least does not meet the requirement in terms of density (feature P1) defined in the operative claims and no information was shown to be on file regarding feature G' ( $G''=3000$ ) (feature P3). Therefore, said example cannot put in question that it is possible to prepare a film according to claim 11 on the basis of the information provided in the patent in suit, if needed complemented

by common general knowledge. To the contrary, it appears that examples 1 and 2 of the patent in suit, which are acknowledged as illustrating the invention (paragraph 67 of the patent in suit), lead to films according to operative claim 11 (table 3 of the patent in suit, second set of process conditions) although no information regarding the take-up speed seems to be indicated.

2.4.3 In view of the above, the appellant's objection fails to convince.

2.5 Regarding claims 12 and 13

As the main request falls on other reasons and claims 12 and 13 of the main request are deleted in the first auxiliary request, there is no need for the Board to deal with the further objections of lack of sufficiency raised against claims 12 and 13 of the main request.

2.6 In view of the above, claims 2 and 3 of the main request do not meet the requirements of sufficiency of disclosure for the reasons outlined in section 2.3 above and the main request is, for that reason, not allowable. However, the objections of lack of sufficiency of disclosure put forward by the appellant against claims 1 and 11 (dependent on claim 1) are rejected.

### **First auxiliary request**

3. Admittance

3.1 The first auxiliary request was filed with the respondent's letter of 18 January 2022, i.e. after



notification of the summons to oral proceedings which had been issued in 2021. Thus, without prejudice to the parties' arguments, its admittance is governed by Article 13(2) RPBA 2020 (cf. transitional provisions of Article 25(3) in conjunction with Article 24(1) RPBA 2020), according to which any amendment to a party's appeal case is, in principle, not taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

3.2 The appellant argued that the filing of the first auxiliary request meant a change of the respondent's case which was neither due to exceptional circumstances nor justified by cogent reasons and should not be taken into account under Article 13(2) RPBA 2020. It should have been filed in the first instance proceedings, or at the latest in reaction to the objections of lack of sufficiency of disclosure raised in the statement of grounds of appeal.

3.3 The respondent argued that the first auxiliary request did not comprise any additional subject-matter since only claims 2 to 5 and claims 12 and 13 of the main request had been deleted in reaction to the Board's preliminary opinion as regards the objection under Article 100(b) EPC against claims 2 and 3 of the main request relating to the issue of conversion of the tear strength into a  $T_{TD}$  value (see above point 2.3.1). Consequently, the filing of the first auxiliary request did not result in a change of case since the remaining subject-matter was also part of the main request and was fully discussed between the parties. In the absence of a change of case the first auxiliary request should be taken into account. If it were nevertheless to be regarded as a "change of case", then exceptional

circumstances would exist, since the deletion of the claims would reduce the number of objections to be discussed and thus the complexity of the procedure. It should also be noted that with the filing of the first auxiliary request, the other auxiliary requests were also withdrawn, so that the procedure as a whole was simplified. The "change of case" therefore served the purpose of procedural economy. According to the respondent, it would not be in line with the rationale behind Article 13 RPBA 2020 if changes that simplify the procedure were not taken into account.

- 3.4 The Board follows decision T 247/20, point 1.3 of the Reasons, in that the examination under Article 13(2) RPBA 2020 is of a two-step nature (see also T 2988/18, point 1.2 of the Reasons), i.e. in that it is first necessary to examine whether there is an amendment to a party's appeal case. If that question is answered in the negative, there is no discretion not to take the relevant submission into account. However, if the question is answered in the positive, it is necessary to examine whether the party concerned has provided cogent reasons for the existence of exceptional circumstances which may justify the submission at such a late stage of the proceedings.
- 3.5 The first auxiliary request differs from the main request only in that claims 2 to 5 and claims 12 and 13 have been deleted, i.e. it comprises only subject-matter which was also part of the main request.
- 3.6 The question of whether Article 13 RPBA 2020 is applicable in the case of a mere deletion of claims, i.e. whether the Board has a discretionary power to admit or disregard such a request is answered differently in the case law.

- 3.6.1 Some Boards took the view that the deletion of a category of claims or the deletion of dependent claims or alternatives in claims should not be regarded as an amendment of the appeal case, provided that the deletion neither led to a change in the factual or legal framework of the proceedings nor to a re-weighting of the subject of the proceedings (see the summary of the case law in T 1569/17, point 4.3.2 of the Reasons, T 494/18, point 1.3.1 of the Reasons, T 2091/18, point 3 of the Reasons). In these circumstances, there was no discretionary power with regard to the admittance of such a set of claims under Article 13(2) RPBA 2020.
- 3.6.2 Other Boards, on the other hand, held that the filing of a set of claims which differed from a set of claims in the proceedings only to the extent that certain claims were deleted, constituted an amendment to a party's appeal case so that the Board had discretionary power to admit such a request (see the summary of case law in T 494/18, point 1.3.2 of the Reasons).
- 3.6.3 The aforementioned lines of case law therefore differ in their interpretation of the term "amendments to a party's appeal case".
- 3.6.4 Since that term is not defined in Article 13 RPBA 2020 itself, some decisions (see T 247/20, point 1.3 of the Reasons; T 2091/18, point 4.1 of the Reasons) apply a systematic interpretation, i.e. the term is interpreted in the context of other provisions. In that respect, Article 12(3) RPBA 2020, according to which the statement of grounds of appeal or the reply shall contain a party's complete appeal case, is relied upon. Further considering that Article 12(2) RPBA 2020 *inter*

*alia* requires the appeal to be directed to the requests on which the decision under appeal was based, the Legal Board of Appeal concluded, in J 14/19 (see point 1.4 of the Reasons), *e contrario* that submissions by the parties which are not directed to the requests contained in the statement of grounds or reply thereto imply an amendment to a party's appeal case. Therefore, according to that systematic interpretation, the filing of an amended set of claims, even if the amendment is merely a deletion of claims and the remaining claims were already part of a set of claims in the appeal proceedings, constitutes an amendment to a party's appeal case.

3.6.5 The Board finds the systematic interpretation of the term "amendments to a party's appeal case" convincing and endorses this view. That conclusion is furthermore supported by the fact that amendments to a set of claims have a direct impact on the version of the patent in which it might be maintained, and therefore concerns the - as a rule - central matter of opposition and opposition appeal proceedings. The late filing of the first auxiliary request therefore constitutes, in the Board's view, an amendment to the respondent's appeal case within the meaning of Article 13(2) RPBA 2020. In this respect, the Board follows decisions T 2091/18, point 4.1 of the Reasons and T 494/18, point 1.4 of the Reasons.

3.7 With regard to the question of discretion, the Board would first like to point out that Article 13(2) RPBA 2020 does not explicitly provide for discretionary power of the Boards. However, it is clear from the explanatory remarks that the legislator had the intention to give the Boards discretionary power (see Supplementary Publication 1, OJ EPO 2020, Annex 2, page

221, explanatory remarks in the third column, third paragraph, last sentence: "The Board may decide to admit the amendment in the exercise of its discretion."). This is also apparent from Article 13(1), first sentence, RPBA 2020, which in general provides for discretion for the admittance of amendments to the appeal case after the filing of the statement of grounds or reply. Furthermore, the exclusion of any discretion would hardly be compatible with Article 114(2) EPC.

- 3.8 In T 1294/16 the question was raised of whether and to what extent Article 13(2) RPBA restricted the exercise of discretion in view of the term "in principle" used in this provision ("Any amendment to a party's appeal case made ... shall, **in principle**, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned." (emphasis by the Board)). In T 1294/16 the Board concluded that the word "in principle" should be ignored due to its ambiguity, because it was either redundant to the requirement of "exceptional circumstances" or would provide a residue of discretion for the Board to admit a request even in the absence of exceptional circumstances (cf. *ibid.*, point 18.1 of the Reasons). The Board does not follow this approach, since a term contained in a legal provision should only be disregarded if no interpretation appears possible or if it appears to be manifestly contrary to the meaning of the provision, or if an interpretation cannot be reconciled with higher-ranking law (see Article 23 of the RPBA 2020).
- 3.9 On the contrary, the Board is of the opinion that a meaningful interpretation is readily possible. The *principle* laid down in Article 13(2) of the RPBA 2020

is precisely that amendments to a party's case shall not be taken into account at this late stage of the procedure ("in principle"). The exception to this principle then follows in the half sentence introduced by the phrase "unless", i.e. the principle that amendments to a party's case shall not be taken into account at this late stage of the procedure (i.e. "in principle") can be set aside if the existence of exceptional circumstances is demonstrated with cogent reasons. Such an interpretation is also consistent with the explanatory remarks to Article 13(2) RPBA 2020 (see Supplementary Publication 1, OJ EPO 2020, Annex 2, page 221, explanatory remarks in the third column, third paragraph, first three sentences) which read as follows: "The **basic principle** of the third level of the convergent approach is that, at this stage of the appeal proceedings, amendments to a party's appeal case are not to be taken into consideration. However, **a limited exception** is provided for: it requires a party to present compelling reasons which justify clearly why the circumstances leading to the amendment are indeed exceptional in the particular appeal ("cogent reasons")." (emphasis by the Board).

- 3.10 The question then arises as to whether there are exceptional circumstances within the meaning of Article 13(2) RPBA 2020 which could justify taking into account the first auxiliary request in the procedure. In this context, it should be noted that the late submission of this auxiliary request was justified by the fact that it had been filed in reaction to the Board's preliminary opinion on the appellant's objections under Article 100(b) EPC and that the claims remaining after the deletion were already part of the main request and were discussed in detail by the parties in the proceedings. However, the filing of a set of claims in

which claims 2 to 5 and claims 12 and 13 of the main request were deleted would already have been possible and reasonable with the rejoinder to the statement of grounds of appeal in response to objections raised in the statement of grounds of appeal, i.e. it was not triggered in the present case by subsequent developments in the appeal proceedings.

3.11 Following the explanatory remarks to Article 13(2) RPBA 2020 (see Supplementary Publication 1, OJ EPO 2020, Annex 2, page 221, explanatory remarks in the third column, third paragraph, third sentence), a party has "to present compelling reasons which justify clearly why the circumstances **leading** to the amendment are indeed exceptional in the particular appeal ("cogent reasons")." (emphasis by the Board). Accordingly, the explanatory remarks appear to require causality in the sense that the amendments to a party's appeal case must have been triggered by exceptional circumstances.

3.12 However, in similar cases, some Boards have acknowledged exceptional circumstances provided that the admittance of the amendments was neither detrimental to procedural economy, nor to the convergent approach laid down in the RPBA, nor to the legitimate interests of a party to the proceedings. This specific procedural situation was considered an "exceptional circumstance" within the meaning of Article 13(2) RPBA 2020 (see T 1598/18, point 25.1 of the Reasons; T 1294/16, points 18.3 and 19 of the Reasons; T 339/19, point 1.5 of the Reasons).

3.13 In this context, however, it should be noted that in the aforementioned cases the late amendments to the appeal case, i.e. the deletion of certain claims or groups of claims, was not causally linked to

exceptional circumstances. The admittance of such late amendments in the above decisions seems to be based rather on a legal assessment of the specific procedural situation, by requiring that the amendments are not detrimental to procedural economy and do not affect the legitimate interests of another party, which can be considered as "exceptional" when an amended set of claims is filed at such a late stage of the proceedings. It should be noted that the wording of Article 13(2) RPBA 2020 does not require the amendment to be *triggered by* exceptional circumstances. It is sufficient for exceptional circumstances to *exist*, which can therefore also be of a legal nature. In the Board's view, such an interpretation does not conflict with the above explanatory remarks, which appear to illustrate only the main scenario under that provision that an amendment to the appeal case may be taken into account if it is made *in reaction* to exceptional circumstances.

3.14 In addition, a teleological interpretation which considers the purpose of the EPO's power to disregard late-filed facts or evidence and the discretionary power to refuse new requests as enshrined in Articles 114(2) and 123(1) EPC seems to support this conclusion. It follows from the preparatory documents ("travaux préparatoires") to the EPC 1973 (cf. T 122/84, point 11 of the Reasons; T 951/91, point 5.13 of the Reasons) that this procedural possibility is intended to prevent the parties from improperly delaying the proceedings. In particular, it serves to ensure the principles of procedural economy and of fair proceedings. It should therefore be noted that the power to disregard late submissions under the EPC does not constitute a procedural end in itself. In the Board's view, therefore, there is no reason, unless



there is a risk of prejudice to the above principles, to disregard requests filed at a late stage of the proceedings aiming at maintenance of a patent in a particular version (cf. also T 339/19, points 1.3.3 and 1.5 of the Reasons).

3.15 As regards the present first auxiliary request it is noted that it differs from the main request only in that claims 2 to 5 and claims 12 and 13 have been deleted. Furthermore, the remaining claims have already been discussed in detail by the parties in their written submissions, so that the appellant's legitimate interests are not adversely affected by that change of case. Thus, the first auxiliary request neither altered the factual or legal framework of the proceedings, nor was there a need for a re-weighting of the subject of the proceedings. Moreover, with the filing of the first auxiliary request, the other auxiliary requests were also withdrawn, so that the procedure as a whole was simplified. The "change of case" therefore served the purpose of procedural economy and was not contrary to the principle of fair proceedings.

3.16 For these reasons, which in the Board's view constitute exceptional circumstances within the meaning of Article 13(2) RPBA 2020, the Board made use of its discretion pursuant to Article 13(2) RPBA 2020 by admitting the first auxiliary request into the proceedings.

4. Documents D20 to D22 - Admittance

4.1 The submission of documents D20 to D22 by the appellant with letter of 8 February 2022, i.e. after notification of the summons to oral proceedings, constitutes an amendment of the appellant's appeal case, the

admittance of which is subject to the stipulations of Article 13(2) RPBA 2020 (which is applicable under Article 25(1) and (3) RPBA 2020). According to this provision an amendment to a party's case shall in principle not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

- 4.2 D20 to D22 were filed in support of the appellant's objection regarding lack of inventive starting from D1 as the closest prior art. In particular, an objection was put forward starting from a modified version of comparative example A of D1 (the modification was in terms of the split of the polyethylene fractions used to prepare it, leading to the so-called "comparative example A\*"), whereby some properties of said modified comparative example were estimated in D20 on the basis of the teaching of D21 (using the "Hagström's equations"). Also, D22 was filed as evidence of common general knowledge related to feature Mz.
- 4.2.1 However, neither in writing, nor at the oral proceedings before the Board, the appellant has shown, not even argued, that "exceptional circumstances, justified by cogent reasons" were present and justified the late filing of D20 to D22 at such a late stage of the proceedings.
- 4.2.2 Nor can the Board identify any such exceptional circumstances. In particular, the assessment of inventive step starting from D1 as the closest prior art already constituted one of the main points of dispute between the parties during the opposition proceedings. It was also an issue that was already addressed by the appellant in its statement of grounds of appeal (sections 2.13 to 2.22) as well as by the

respondent in its rejoinder thereto (middle of page 9 to middle of page 10). Under these circumstances, documents D20 to D22 could and should have been filed at the outset of the appeal proceedings at the latest if the appellant contemplated to rely on them.

4.2.3 Contrary to the appellant's view (letter of 8 February 2022: section 1.3, second paragraph, which was pursued at the oral proceedings before the Board) neither the Board's communication, nor the respondent's submissions dated 18 January 2022 may justify the late filing of these documents, since no new issue was raised by the Board or the respondent in these submissions. In particular, the Board cannot recognise that there was a change in the subject of the proceedings after the filing of the statement of grounds of appeal and the rejoinder thereto. In that regard, it is in particular noted that the question whether the cited prior art documents taught how to modify the prior art material so as to arrive at something falling within the terms of the operative claims was already at stake in the decision under appeal (end of last paragraph of each of sections 6.1 to 6.2, end of second paragraph of section 6.3).

4.3 In view of the above, the Board found it appropriate to exercise its discretion by not admitting documents D20 to D22 into the proceedings (Article 13(2) RPBA 2020).

5. Sufficiency of disclosure

Claims 1 to 7 of the first auxiliary request correspond to claims 1 and 6 to 11 of the main request. No additional or separate objections regarding lack of sufficiency of disclosure were raised against the first auxiliary request as compared to said claims 1 and 6 to

11 of the main request. Since all these objections were already taken into account for the main request and were rejected (sections 2.2 and 2.4 above), the same conclusion is bound to be reached for the first auxiliary request.

6. Article 54 EPC

6.1 The opposition division's conclusion according to which the subject-matter of operative claim 1 was novel over the commercial product "Thaizex 7000F", which was used in comparative example 6 of the patent in suit, was contested by the appellant.

6.2 However, as indicated in the Board's communication (section 7.2), the Board could not find any trace in the appellant's submissions (during both the opposition and the appeal proceedings) of a valid prior art document disclosing the use of Thaizex 7000F for making a film as defined in operative claim 1. In particular, document D7, which was relied upon during the opposition proceedings (opponent's letter of 1 June 2018: section 1.2), is directed to 3D printings and does not disclose a film formed from Thaizex 7000F according to operative claim 1.

6.3 The appellant provided no counter-arguments to these preliminary considerations of the Board, in particular not during the oral proceedings before the Board. Under these circumstances, the Board confirms its preliminary opinion that the appellant's objection of lack of novelty over the commercial product "Thaizex 7000F" cannot succeed already for that reason.

6.4 In view of the above, there is no need for the Board to address any further issues in dispute between the

parties regarding novelty, in particular in respect of the impact of the magnitude of the measurement error when determining feature P4 (statement of grounds of appeal: section 1) and/or whether or not the commercial product "Thaizex 7000F" is a valid prior art in view of opinion G 1/92 (OJ EPO 1993, 277) and decision T 1833/14, as put forward by the respondent (letter of 27 August 2019: pages 1 and 2).

7. Article 56 EPC

7.1 Identification of suitable disclosures as the closest prior art

7.1.1 The appellant considered five different starting points for the assessment of the inventive step, namely comparative examples C6 or C3 of the patent in suit, examples 2 or 7 of D1 and example 5 of D3. In that respect, it is indicated in paragraph 86 of the patent in suit that:

- Comparative example C3 of the patent in suit corresponds to comparative example A of D1;
- Comparative example C4 of the patent in suit corresponds to example 7 of D1;
- Comparative example C6 of the patent in suit corresponds to the commercial product Thaizex 7000F;
- Comparative example C7 of the patent in suit corresponds to example 5 of D3.

In view of this, the starting points considered hereinafter will be acknowledged as Thaizex 7000F,

comparative example A of D1, examples 2 and 7 of D1 and example 5 of D3.

7.1.2 Regarding the selection of Thaizex 7000F as starting point

a) Although the respondent appeared to consider that Thaizex 7000F might be considered as a suitable starting point for the assessment of the inventive step (rejoinder: page 8, end of second paragraph), the opposition division held that such an approach would be based on hindsight (section 6.1 of the reasons: second and third paragraphs).

b) In that respect, according to the EPO case law, the closest prior art for assessing inventive step is a prior art 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, i.e. requiring the minimum of structural modifications (Case Law of the Boards of Appeal of the EPO, 9th edition, 2019, I.D.3.1).

c) In the present case, the Board notes that the aim of the patent in suit is to provide polyethylene films having good tear strength and impact resistance in combination with good processability (paragraphs 1, 2, 6, 8, 87 and 91).

Considering that it was not shown that Thaizex 7000F was used in a prior art document for making films but only for making articles by 3D printing, it is agreed with the opposition division that the selection of Thaizex 7000F as starting point for the assessment of the inventive step can only be based on hindsight. In

addition, further considering that Thaizex 7000F is a commercial product for which the preparation process was not shown to be known in the art, it cannot be concluded that the skilled person would know what to do in order to modify any of the properties of that product in order to arrive at the subject-matter being claimed, as apparently held by the opposition division (section 6.1 of the reasons: third paragraph, last sentence).

These considerations were already indicated in the Board's communication (section 8.2.2) and no counter-arguments in that regard were submitted by the appellant, either in writing or at the oral proceedings before the Board. Under these circumstances, the Board has no reason to deviate from its preliminary opinion that the selection of Thaizex 7000F as closest prior art is based on hindsight, which is not allowable. Therefore, there is no need for the Board to address that objection any further in the present decision.

#### 7.1.3 Selection of D1 or D3 as closest prior art documents

The selection of either D1 or D3 as a closest prior art document remained undisputed between the parties and was also not objected to by the opposition division. The Board sees no reason to deviate from these views, in particular because both D1 and D3 aim, as the patent in suit, at providing polyethylene films having good mechanical properties (tear strength and impact resistance) as well as good processability. Therefore, the assessment of inventive step starting from either D1 or D3 is dealt with separately hereinafter.

#### 7.1.4 Various starting points within D1

Regarding D1 as closest prior art, the appellant's objections started from either comparative example A or any of examples 2 or 7 of D1, whereby the selection of none of these starting points was disputed by the respondent. In that respect, although comparative example A of D1 did not allow to prepare a film in view of its poor rheological properties (note "\*" at the bottom of both table 4 of D1 and table 3 of the patent in suit), it is derivable from D1 itself that it is known in the art that these properties may be improved either by reticulation (as was done in D1) or by modifying the structural properties of the polyethylene used (D1: page 1, line 16 to page 2, line 5). Therefore, also the Board considers that, in the present case, there would be no reason to discard comparative example A of D1 as a suitable starting point for the assessment of the inventive step. For that reason, each of comparative example A and examples 2 or 7 of D1 constitutes a suitable starting point for the assessment of inventive step and will also be addressed separately hereinafter.

## 7.2 Starting from comparative example A of D1

### 7.2.1 Distinguishing feature(s)

Comparative example A of D1 corresponds to example C3 of the patent in suit (paragraph 86 of the patent in suit). In view of the footnote of table 3 of the patent in suit and of page 24, lines 1-7 of D1, the subject-matter of operative claim 1 differs from comparative example A of D1 in that it is directed to a film, whereby said film is further formed from a composition having a higher HLMI (7-15 in claim 1 vs. 6 for comparative example A of D1).



### 7.2.2 Problem solved

During the oral proceedings before the Board, both parties agreed that the technical problem solved over comparative example A of D1 at least resided in the provision of a polyethylene film from a resin having improved extrudability.

However, the respondent considered that the examples of the patent in suit and of Annex 1 filed with the rejoinder showed that the problem solved further resided in the provision of polyethylene films showing an improved balance between transverse direction tear strength ( $T_{TD}$ ) and dart drop impact resistance (I). Considering that the Board concluded that an inventive step is present if the problem solved over comparative example A of D1 resides in the provision of a polyethylene film from a resin having improved extrudability as put forward by the appellant, which was not in dispute between the parties, that formulation of the problem is, to the appellant's benefit, hereinafter considered.

### 7.2.3 Obviousness

a) The question has to be answered whether the skilled person, desiring to solve the problem identified as indicated above, would, in view of the closest prior art, possibly in combination with other prior art or with common general knowledge, have modified the disclosure of the closest prior art in such a way as to arrive at the claimed subject matter.

*In view of comparative example A itself*

b) In that respect, it is derivable from D1 (page 24,

lines 1-7; example 2) that, in order to make a film, it was necessary to improve the rheological properties of the polyethylene composition of comparative example A by increasing its  $G'$  ( $G''=3000$ ) via reticulation (which was done in example 2 of D1), whereby the level of reticulation may be adjusted by varying the amount of crosslinking agent employed (D1: page 10, line 31 to page 11, line 28). Although the reticulation carried out in example 2 of D1 led to a  $G'$  ( $G''=3000$ ) outside the range defined in operative claim 1, the Board shares the appellant's opinion that, in particular in view of figure 1 of D1, the skilled person could have followed the teaching of D1 and adjusted the level of reticulation so as to achieve a  $G'$  ( $G''=3000$ ) within the range defined in operative claim 1 (statement of grounds of appeal: sections 2.21 and 2.22). This was also acknowledged by the respondent (letter of 18 January 2022: page 5, first full paragraph), albeit it was considered that the overlap between the requirements defined in D1 and in operative claim 1 was small (see also annotated figure 1 at the bottom of page 4 of the respondent's letter of 18 January 2022). However, as argued by the appellant, it is derivable from figure 1 of D1 that the effect of reticulation of comparative example A shifts the dynamic complex viscosity (parameter  $\eta^*_{100}$ ) slightly to higher value, which means that HLMI slightly decreases (appellant's letter of 8 February 2022: section 3.26; respondent's letter of 18 January 2022: page 5, third full paragraph). Therefore, it cannot be concluded that the mere reticulation of the composition prepared in comparative example A so as to prepare a film mandatorily means that said composition satisfies the requirement in terms of HLMI defined in operative claim 1.

However, it is further derivable from the teaching of D1 as a whole, that the HLMI of the polyethylene composition to be used may be varied within a wide range (page 12, lines 26-28: 2-100 g/10min) including the range of 7-15 g/10min according to operative claim 1, whereby a HLMI value of 6.7 g/10min (i.e. close to the lower limit specified in operative claim 1) is disclosed in some examples of D1 (table 2, page 21). Also, it is derivable from D17 (page 88: section 4.8.1, last sentence) that the skilled person would expect that increasing HLMI would be beneficial in terms of processability (statement of grounds of appeal: section 2.11). In that respect, it was further in agreement between the parties that an increase in terms of HLMI means a reduction in molecular weight, which leads to a decrease in terms of dynamic complex viscosity (parameter  $\eta^*_{100}$ ; see respondent's letter of 18 January 2022: page 5, third full paragraph; appellant's letter of 8 February 2022: section 3.26). As put forward by the appellant during the oral proceedings before the Board, an increase in HLMI of the composition prepared in comparative example A of D1 would therefore mean that said example would shift to the left in figure 1 of D1. However, there is no evidence on file regarding the level of that shift, in particular not when increasing HLMI from the value of 6 g/10 min (according to comparative example A) to at least 7 g/10min so as to be in the range specified in operative claim 1.

Under these circumstances, it cannot be concluded that it was shown that should the HLMI of the polyethylene composition of comparative example A of D1 be increased so as to arrive at a value according to operative claim 1, a further reticulation carried out according to the teaching of D1 would lead to a feature

G' (G''=3000) which is mandatorily within the range defined in operative claim 1.

c) In addition, it was in dispute between the parties if, even if the features HLMI and G' (G''=3000) of the composition according to comparative example A of D1 were to be modified so as to be within the ranges defined therefor in operative claim 1, the requirements of the other parameters defined therein would still be met. In that regard, it was argued by the respondent that there was no evidence that this was at all possible for feature Mz/G' (G''=3000) (rejoinder: page 10, end of third paragraph; page 9, third paragraph; page 8, first paragraph).

In that respect, it is in the Board's view derivable from table 2 of the patent in suit that the composition according to comparative example A has a Mz/G' (G''=3000) of 1128 Da/Pa (see column: comparative example C3; last row), which is within the range defined in operative claim 1 ("at least 930 Da/Pa"). Nevertheless, it has to be analysed how a reticulation and an increase in terms of HLMI (which both have to be carried out on the composition prepared in comparative example A of D1 in order to prepare a film from a resin having improved extrudability) may affect said ratio Mz/G' (G''=3000).

#### *Effect of reticulation*

It was common ground that, in view of the teaching of D1, reticulating the composition of comparative example A thereof would lead to an increase in terms of G' (G''=3000). The respondent's view that reticulation would be expected to have a small effect on Mz (letter of 18 January 2022: page 5, last line), was also not contested by the appellant (also at the oral

proceedings before the Board). Under these circumstance, it is expected that a reticulation of the composition of comparative example A would lead to a decrease in terms of the ratio  $Mz/G'$  ( $G''=3000$ ). However, there is no evidence on file regarding the level of that decrease. Therefore, the Board is not in the position to conclude that at the level of reticulation which is required in order to ensure that feature  $G'$  ( $G''=3000$ ) increases so as to be according to operative claim 1, feature  $Mz/G'$  ( $G''=3000$ ) will also mandatorily be in the range defined therein.

*Effect of an increase in terms of HLMI*

It was also undisputed that increasing HLMI, which corresponds to a decrease in terms of molecular weight, would be expected to lead to a decrease in terms of  $Mz$  (which is known in the art to be the z-average molecular weight, which is mainly influenced by the high molecular weight species). However, there is no evidence on file regarding the level of that decrease, in particular not when increasing HLMI from the value of 6 g/10 min (according to comparative example A) to at least 7 g/10min so as to be in the range specified in operative claim 1. In addition, no evidence was provided to show what effect such an increase would have in terms of feature  $G'$  ( $G''=3000$ ). Therefore, the Board is also not in the position to conclude that if HLMI of the composition according to example A of D1 is increased so that is within the range defined in operative claim 1, feature  $Mz/G'$  ( $G''=3000$ ) will also mandatorily be in the range defined therein. This is all the more true since D1 further provides no teaching how such an increase in HLMI could be achieved, whereby the respondent indicated at the oral proceedings that various methods could be used, which could have a

different impact on the variation of ratio  $Mz/G'$  ( $G''=3000$ ).

*Combined effect*

In view of the above, it was not shown that by increasing HLMI of the polyethylene composition of comparative example A of D1 in order to arrive at a value according to operative claim 1, while further reticulating said composition by following the teaching of D1 and so as to arrive in the range of  $G'$  ( $G''=3000$ ) defined in operative claim 1, it was possible at all to arrive at a value of feature  $Mz/G'$  ( $G''=3000$ ) within the range defined in operative claim 1.

*In view of comparative example A\**

d) At the oral proceedings before the Board, the appellant argued that comparative example A of D1 comprised a low molecular weight fraction ("Component A") being a homopolymer of ethylene and a high molecular weight fraction ("Component B") being an ethylene-hexene copolymer (D1: tables 1 and 2). Therefore, starting from comparative example A of D1, the skilled person could increase the HLMI (so as to improved extrudability) merely by increasing the amount of the fraction having the higher melt flow rate ("Component A"). This could be simply done by slightly adjusting the split of both polyethylene fractions (Components A and B), so the appellant, whereby said adjusted example will be hereinafter referred to as comparative example A\* as was done by the parties during the oral proceedings. In doing so, not only the HLMI of the composition according to comparative example A\* but also the remaining features (density,  $G'$  ( $G''=3000$ ) and  $Mz/G'$  ( $G''=3000$ )) would be in the range

according to operative claim 1, so the appellant. That line of argumentation was submitted both for the non-reticulated and for the reticulated composition according to comparative example A\*.

d1) However, it was not shown that D1 contained any hint which would have motivated the skilled person to modify comparative example A of D1 in the manner contemplated by the appellant. Therefore, the appellant's objection is, already for that reason, based on hindsight.

d2) This is all the more true regarding the objection based on the non-reticulated composition according to comparative example A\* since, although it is indicated in D1 that the relationship between  $G'$  ( $G''=3000$ ) and dynamic complex viscosity aimed at in that document may be achieved without reticulation (D1: page 11, lines 18-19), the teaching of D1 is that it is typically achieved by reticulation (D1: page 11, lines 19-28; page 24, lines 5-9). In particular, no evidence was provided by the appellant to show that D1 effectively taught how to prepare a suitable film without reticulation.

d3) In addition, in the absence of any evidence regarding the level of adjustment of the split between both polyethylene fractions prepared in comparative example A of D1 which would be required in order to achieve a HLMI according to claim 1 and/or regarding the values of density, feature  $G'$  ( $G''=3000$ ), feature  $M_z/G'$  ( $G''=3000$ ) of a composition according to said comparative example A\* (either reticulated or not), the line of argumentation put forward by the appellant is merely speculative.

d4) In view of the above, it cannot be concluded that it was shown that it would have been obvious to solve the above problem by preparing a composition according to said comparative example A\*, either reticulated or non-reticulated.

7.2.4 In view of the above, the appellant's objections of lack of inventive step starting from comparative example A of D1 as the closest prior art is rejected.

7.3 Starting from examples 2 or 7 of D1

7.3.1 Distinguishing feature(s)

In view of the properties reported in tables 2 and 3 of D1 (pages 21-22), the subject-matter of operative claim 1 differs from the films prepared in examples 2 and 7 of D1 (according to paragraph 86 of the patent in suit example 7 of D1 corresponds to comparative example C4 of the patent in suit) in that the polyethylene from which the films are prepared have

- a higher HLMI (7-15 in claim 1 vs. 6 and 3.8 for examples 2 and 7 of D1 respectively; see table 2 on page 21 of D1),
- a lower  $G'$  ( $G''=3000$ ) (1400-1800 Pa in claim 1 vs. 2125 Pa and 2335 Pa for examples 2 and 7 of D1 respectively; see table 3 on page 22 of D1) and
- a value of  $M_z/G'$  ( $G''=3000$ ) of at least 930 Da/Pa, whereby no information in that respect appears to be derivable from the information provided in D1 and for which no further evidence is on file (in particular not in table 2 of the patent in suit,



in which no value of  $M_z$  is reported for comparative example C4).

### 7.3.2 Problem solved

As explained in section 7.2.2 above, the technical problem solved over examples 2 or 7 of D1 is seen, to the appellant's benefit and in view of the presence of at least the same distinguishing feature, as residing in the provision of a polyethylene film from a resin having improved extrudability.

### 7.3.3 Obviousness

However, for similar reasons to those outlined above in respect of the assessment of inventive step starting from comparative example A of D1, it was not shown that it would be obvious to solve the above problem by modifying the teaching of examples 2 or 7 of D1 so as to arrive at the combination of features according to operative claim 1. In particular, no further arguments have been provided of the impact of an increase of the HLMI in order to improve extrudability on the other parameters of the claim, in particular on the ratio  $M_z/G'$  ( $G''=3000$ ) which is unknown for examples 2 and 7 of D1 themselves. In view of that, the appellant's objections of lack of inventive step starting from examples 2 and 7 of D1 as the closest prior art can only fail.

## 7.4 Starting from example 5 of D3

### 7.4.1 Distinguishing feature(s)

Example 5 of D3 corresponds to comparative example 7 of the patent in suit (see paragraph 86 of the patent in

suit). In view of the properties reported in table 2 of the patent in suit, the subject-matter of operative claim 1 differs from the film prepared in example 5 of D3 in that the polyethylene composition from which the film is prepared has

- a higher density (948-951 kg/m<sup>3</sup> in claim 1 vs. 947 kg/m<sup>3</sup> in example 5 of D3),
- a value of G' (G''=3000) of 1400-1800 Pa and a value of Mz/G' (G''=3000) of at least 930 Da/Pa, whereby no information in respect of these features appears to be derivable from the information provided in D3 and for which no further evidence is on file.

#### 7.4.2 Problem solved

In the following, the technical problem solved over example 5 of D3 is seen, to the appellant's benefit, as residing in the mere provision of an alternative polyethylene film (as argued e.g. in the statement of grounds of appeal: sections 2.23 to 2.26).

#### 7.4.3 Obviousness

Although D3 teaches that the density of the polyethylene composition used therein may be within the range of operative claim 1 (D3: paragraphs 17-18), it cannot be concluded, in particular in the absence of any information regarding G' (G''=3000) and Mz for the composition of example 5 of D3, that it would be obvious for the skilled person to modify said composition in order to arrive at the subject-matter of operative claim 1. In particular, no further arguments have been provided of the impact of an increase of

density when aiming at providing an alternative film on the other parameters of the claim, in particular on  $G'$  ( $G''=3000$ ) and on the ratio  $Mz/G'$  ( $G''=3000$ ) which are unknown for example 5 of D3 itself. In view of that and for similar reasons to those outlined above in respect of the assessment of inventive step starting from comparative example A of D1, the appellant's objections of lack of inventive step starting from example 5 of D3 as the closest prior art can only fail.

7.5 In view of the above, the appellant's objections regarding lack of inventive step did not succeed.

8. Since none of the objections put forward by the appellant against the first auxiliary request is successful, the patent is to be maintained in amended form on that basis.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent in amended form on the basis of the claims of the first auxiliary request filed with letter of 18 January 2022 and after any necessary consequential amendments of the description.

The Registrar:

The Chairman:



B. ter Heijden

D. Semino

Decision electronically authenticated