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Datasheet for the decision of 13 September 2023

Case Number: T 0022/21 - 3.3.03

Application Number: 09800007.8

Publication Number: 2307467

IPC: C08F10/06, C08J5/18, C08F110/06

Language of the proceedings: EN

Title of invention:
POLYPROPYLENE COMPOSITION WITH IMPROVED OPTICS FOR FILM AND MOULDING APPLICATIONS

Patent Proprietor:
Borealis AG

Opponent:
Basell Poliolefine Italia S.r.l.

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 13(2), 12(6) sentence 2

Keyword:

Late-filed line of defence - exceptional cirtumstances (no) - taken into account (no)
Inventive step - main request (no) - auxiliary request (yes)
Late-filed objection - should have been submitted in first-instance proceedings (yes)
Amendment after summons - auxiliary request - exceptional circumstances (yes) - admitted (yes)

Decisions cited:

T 0713/14, T 1294/16, T 2104/16, T 0494/18, T 1598/18, T 2091/18, T 2920/18, T 2988/18, T 0339/19, T 2295/19, T 0247/20, T 0499/20

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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 0022/21 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 13 September 2023

Appellant: (Opponent)	Basell Poliolefine Italia S.r.l. Via Pontaccio 10 20121 Milano (IT)
Representative:	LyondellBasell c/o Basell Poliolefine Italia Intellectual Property P.le Donegani 12 44122 Ferrara (IT)
Respondent: (Patent Proprietor)	Borealis AG Trabrennstrasse 6-8 1020 Vienna (AT)
Representative:	Kador & Partner Part mbB Corneliusstraße 15 80469 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 4 November 2020 rejecting the opposition filed against European patent No. 2307467 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	O. Dury
Members:	M. Barrère
	A. Bacchin

Summary of Facts and Submissions

I. The appeal of the opponent lies against the decision of the opposition division posted on 4 November 2020 rejecting the opposition against European Patent number 2 307 467.

The opposed patent had already been the subject of a previous appeal in case T 2104/16. In the corresponding decision of 5 July 2019 the present Board, in a different composition, found that the opponent's objections of lack of sufficiency of disclosure and of lack of novelty did not prejudice the maintenance of the patent as granted. The case was then remitted to the opposition division for further prosecution.

II. Granted claims 1 and 10 read as follows:

"1. A film comprising a polypropylene composition comprising a propylene homopolymer or a propylene random copolymer having at least one comonomer selected from alpha-olefins with 2 or 4-8 carbon atoms and a comonomer content of not more than 8.0 wt%, wherein

the propylene homo- or copolymer is polymerized in the presence of a Ziegler-Natta catalyst, and

the polypropylene composition has a MWD of 2.0 to 6.0 and an MFR (2.16 kg/230°C) of 4.0 g/10 min to 20.0 g/10 min determined according to ISO 1133,

characterized in that the polypropylene composition has not been subjected to a vis-breaking step,

has a haze of not more than 3.5 %, determined according to ASTM D 1003/92, when cast into a film with a thickness of 50 micrometers, and

has a clarity of at least 96.0 %, determined according to ASTM D 1003/92, when cast into a film with a thickness of 50 micrometers.

10. A polypropylene composition comprising a propylene homopolymer or a propylene random copolymer with ethylene as comonomer and a comonomer content of not more than 8.0 wt%, wherein

the propylene homo- or copolymer is polymerized in the presence of a Ziegler-Natta catalyst, and

the polypropylene composition has a MWD of 2.0 to 6.0 and an MFR (2.16 kg/230°C) of 4.0 g/10 min to 20.0 g/10 min determined according to ISO 1133,

characterized in that the polypropylene composition has not been subjected to a vis-breaking step,

wherein the polypropylene composition has an amount of volatiles of 50 microgram C/g or less, determined according to VDA 277:1995, and

the propylene homo- or copolymer is obtainable by a process which comprises the polymerization of propylene monomers or propylene monomers and ethylene comonomers in the presence of a high yield Ziegler-Natta olefin polymerization catalyst, which catalyst comprises a component in the form of particles having a predetermined size range which has been produced in a process comprising:

a. preparing a solution of a complex of a Group 2 metal and an electron donor by reacting a compound of said metal with said electron donor or a precursor thereof in an organic liquid reaction medium,

b. reacting said complex in solution with a compound of a transition metal to produce an emulsion the dispersed phase of which containing more than 50 mol% of the Group 2 metal in said complex.

c. maintaining the particles of said dispersed phase within the average size range of 5 to 200 micrometers by agitation in the presence of an emulsion stabilizer and

d. solidifying said particles, and recovering, optionally washing said particles to obtain said catalyst component."

The wording of the remaining granted claims is not relevant to the present decision. It is merely noted that:

claims 2 to 9 were directed to films according to claim 1, while

claims 11 to 13 were directed to a method of processing a composition according to claim 10 or to uses of said composition.

III. The following documents were *inter alia* cited in the decision of the opposition division:

D5: EP 1 484 345 A1

D6: EP 0 586 109 A2
D10: US 2008/0027197 A1
D14p: Experimental report filed by the patentee during the first appeal proceedings with letter dated 16 November 2016

IV. In the decision under appeal, the opposition division held that the subject-matter of granted claims 1 and 10 involved an inventive step over D5 or D6 as the closest prior art.

V. The opponent (appellant) filed an appeal against said decision.

VI. With the rejoinder to the statement of grounds of appeal, the patent proprietor (respondent) filed five sets of claims as auxiliary requests I to V.

VII. On 18 July 2023, a communication under Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA 2020) was issued conveying the Board's preliminary opinion.

VIII. With letter dated 10 August 2023, the respondent filed an additional set of claims as new auxiliary request I.

IX. Oral proceedings were held before the Board on 13 September 2023.

X. The final requests of the parties were the following:

(a) The appellant requested that the decision under appeal be set aside and the patent be revoked.

(b) The respondent requested that the appeal be dismissed and the patent be maintained as granted.

In the alternative the respondent requested maintenance of the patent in amended form on the basis of auxiliary request I filed as new auxiliary request I with letter of 10 August 2023 or auxiliary requests II to VI filed as auxiliary requests I to V with the rejoinder to the statement of grounds of appeal.

XI. Auxiliary request I differed from the main request of the respondent (the claims as granted) in that claims 10 to 13 were deleted.

Auxiliary requests II to VI are not relevant to the present decision.

XII. The appellant's submissions, in so far as they are pertinent to the present decision, may be derived from the reasons for the decision below. They were essentially as follows:

(a) Admittance of a line of defence

The respondent's argument that the process feature of granted claim 10 was an additional distinguishing feature over D6 was late-filed and should not be admitted into the proceedings.

(b) Main request (patent as granted)

(i) Inventive step starting from D5 or D6 as the closest prior art

The subject-matter of granted claims 1 and 10 did not involve an inventive step starting from D5 or D6 as the closest prior art.

(ii) Inventive step starting from D10 as the closest prior art

The objection of lack of inventive step starting from D10 as the closest prior art should be admitted into the proceedings.

(c) Auxiliary request I

Auxiliary request I was late-filed and should not be admitted into the proceedings. Should it be admitted, the appellant had no additional objections as compared to the ones raised again the main request.

XIII. The respondent's submissions, in so far as they are pertinent to the present decision, may be derived from the reasons for the decision below. They were essentially as follows:

(a) Admittance of a line of defence

The argument that the process feature of claim 10 was an additional distinguishing feature over D6 merely refined the arguments put forward earlier in writing and should therefore be admitted into the proceedings.

(b) Main request (patent as granted)

(i) Inventive step starting from D5 or D6 as the closest prior art

The subject-matter of claims 1 and 10 involved an inventive step starting from D5 or D6 as the closest prior art.

(ii) Inventive step starting from D10 as the closest prior art

The objection of lack of inventive step starting from D10 as the closest prior art should not be admitted into the proceedings.

(c) Auxiliary request I

Auxiliary request I should be admitted into the proceedings.

Reasons for the Decision

1. Preliminary remark

By earlier decision T 2104/16 of the same Board in a different composition, the first appeal proceedings against a first decision of the opposition division in respect of the patent in suit were terminated by remitting the case to the opposition division for further prosecution. The present Board, dealing with a second appeal against a second decision of the opposition division taken following the remittal on the same subject-matter, is bound by the *ratio decidendi* of the first decision in so far as the facts are the same, in application *mutatis mutandis* of Article 111(2) EPC (see Case Law of the Boards of Appeal, 10th edition, 2022, V.A.10.4).

2. Admittance of a line of defence

2.1 In the statement of grounds of appeal, the appellant objected that the subject-matter of granted claim 10

lacked an inventive step starting from document D6 as the closest prior art.

2.2 With letter of 10 August 2023 and therefore after notification of the summons to oral proceedings, the respondent contended that D6 could not be chosen as the closest prior art for claim 10 because this document did not disclose a polypropylene composition obtainable by polymerisation

> "*in the presence of a high yield Ziegler-Natta olefin polymerization catalyst, which catalyst comprises a component in the form of particles having a predetermined size range which has been produced in a process comprising:*
>
> > *a. preparing a solution of a complex of a Group 2 metal and an electron donor by reacting a compound of said metal with said electron donor or a precursor thereof in an organic liquid reaction medium,*
> >
> > *b. reacting said complex in solution with a compound of a transition metal to produce an emulsion the dispersed phase of which containing more than 50 mol% of the Group 2 metal in said complex.*
> >
> > *c. maintaining the particles of said dispersed phase within the average size range of 5 to 200 micrometers by agitation in the presence of an emulsion stabilizer and*
> >
> > *d. solidifying said particles, and recovering, optionally washing said*

particles to obtain said catalyst component" (product-by-process feature of granted claim 10)

Moreover, the respondent argued that the above product-by-process feature constituted an additional distinguishing feature between the subject-matter of granted claim 10 and D6.

2.3 The appellant held that the above line of defence was late-filed and requested that it be excluded from the proceedings.

2.4 Article 13(2) RPBA 2020 provides that amendments to a party's case made after notification of the summons to oral proceedings are not to be taken into account unless exceptional circumstances, justified by cogent reasons, exist.

The Board concurs with the approach taken in several decisions (T 247/20, point 1.3 of the Reasons; T 2988/18, point 1.2 of the Reasons; T 2920/18, point 3.4 of the Reasons), according to which the examination under Article 13(2) RPBA 2020 is carried out in two steps. The question to be answered in the first step is whether the submission objected to is an amendment to a party's appeal case. If that question is answered in the negative, then the Board has no discretion not to take the submission into account. If, however, that question is answered in the affirmative, then the Board needs to decide whether there are exceptional circumstances, justified by cogent reasons (second step).

2.5 The first question to be answered by the Board is therefore whether the present line of defence constitutes an amendment of the respondent's case.

2.5.1 According to the respondent, the line of defence presented under point 2.2 was not new, but refined the arguments put forward in writing.

2.5.2 The Board cannot agree with the respondent for the following reasons:

(a) In the rejoinder to the statement of grounds of appeal (see page 3, point 3.3), the respondent merely argued, in relation to the suitability of document D6 to be selected as the closest prior art - also for granted claim 10 -, that

> "*D6 is completely silent on the processability in particular in view of the coefficient of friction. Thus, the purpose differs from the purposes of the patent in suit and D5. That D6 might have more features in common with claim 1 of the patent in suit cannot render it closest prior art over D5, as the purpose is different in comparison to other documents*"

In addition, it is apparent from point 3.31 of the rejoinder that at that point of time the respondent considered that D6 could be used for the assessment of inventive step. Furthermore, the respondent did not mention that the nature of the catalyst used in D6 was a feature distinguishing the subject-matter of granted claim 10 from the disclosure of D6.

(b) Whereas, in the rejoinder, the respondent's argument was limited to the question of the

processability of the compositions of D6 (and did not discuss any additional distinguishing feature between claim 10 and D6), the present line of defence focuses on the product-by-process feature of claim 10 and, in particular on the nature of the catalyst as an alleged distinguishing feature. The respondent's line of defence based on the product-by-process feature of claim 10 did not form part of the respondent's case presented in its rejoinder, nor does it constitute a mere development of its argumentation. This is clear when it is considered that, if this line of defence were to be admitted, it would require new and possibly complex facts to be discussed for the first time at the oral proceedings before the Board, e.g. to what extent the catalyst affects the polypropylene structure and/or whether the polypropylenes of D6 can be obtained by a catalyst as defined in claim 10.

2.5.3 Since the new line of defence of the respondent raises new technical issues, it constitutes a change of the factual framework of the appeal and is therefore an amendment of the respondent's case within the meaning of Article 13(2) RPBA 2020.

2.6 The second question to be answered is whether there are exceptional circumstances, supported by cogent reasons, which justify the admittance of the present line of defence into the appeal proceedings.

2.6.1 The respondent argued that the present line of defence was submitted in reaction to the preliminary opinion of the Board.

2.6.2 The Board cannot accept this justification since its preliminary opinion was based exclusively on the

parties' submissions in the statement of grounds of appeal and the respective rejoinder. Furthermore, at the request of the Board during the oral proceedings, the respondent did not identify any particular aspect of the opinion that could be new or surprising to it. Consequently, the Board does not see any exceptional circumstances which could justify the late submission of this line of defence.

2.7 In the absence of any exceptional circumstances, the new line of defence of the respondent is not taken into account (Article 13(2) RPBA 2020).

Main request (patent as granted)

Inventive step

3. Claim 1 as granted

According to the appellant, the subject-matter of claim 1 lacks an inventive step over each of the documents D5, D6 and D10 as the closest prior art. The Board will address the three lines of attack separately below.

3.1 D5 as the closest prior art

Document D5 and in particular example 5 thereof was considered as a starting point for the assessment of inventive step both in the decision (see page 7, point 2.2.3) and by the parties in appeal (statement of grounds of appeal, page 2, point 2; rejoinder to the statement of grounds of appeal, page 3, point 3.5). The Board has no reason to depart from that view.

3.1.1 Distinguishing features

(a) According to the appellant, the polymeric composition of example 5 of D5 is implicitly characterised by a haze, clarity and molecular weight distribution (MWD) as recited in claim 1. Thus, the only distinguishing feature between claim 1 and this embodiment of D5 is that the composition is in the form of a film.

(b) The respondent holds that the subject-matter of claim 1 further differs from example 5 of D5 in the haze, clarity and MWD of the composition.

(c) It is undisputed that D5 does not explicitly disclose the optical properties and the MWD of the composition of example 5. It therefore needs to be evaluated whether these properties can be seen as implicit, as alleged by the appellant.

The appellant considers that the similarities between the process of example 5 of D5 and the process of the opposed patent make it credible that the haze, clarity and MWD should be within the ranges defined in granted claim 1. However, the respondent provided evidence that the process of example 5 of D5 leads to a polymeric composition having a MWD of about 7 well above the range recited in claim 1 (see D14p, Table 2). It should be noted that the results of D14p were not questioned by the opposition division (see contested decision, page 10, paragraph 2,5.3).

During the oral proceedings before the Board, the appellant argued that the experiments of D14p were carried out in batch which would explain the different results (compared to a continuous process). However, the Board notes that the

composition of example 5 of D5 was also prepared in a batch process so that the reproduction D14p cannot be invalid for that reason.

Consequently, based on the experimental evidence provided in D14p, the respondent has shown that the composition of example 5 of D5 is not implicitly characterised by a MWD of 2.0 to 6.0. This means that it cannot be concluded in view of the similarities between the process of example 5 of D5 and the process of the opposed patent that the polypropylene prepared in example 5 of D5 must have the same properties as the ones of the polypropylene prepared in the patent in suit. In view of the fact that the MWD is a distinguishing feature between claim 1 and example 5 of D5, the Board has no reason to assume that the haze and clarity of the polypropylene composition prepared in example 5 of D5 must be within the ranges specified in claim 1.

(d) Under these circumstances, the subject-matter of claim 1 differs from example 5 of D5 in that it is:

(i) directed to a film

and in that the polypropylene comprised in the film has

(ii) a MWD of 2.0 to 6.0,

(iii) a haze (as defined therein) of not more than 3.5 % and

(iv) a clarity (as defined therein) of at least 96.0 %.

3.1.2 Objective problem to be solved

(a) The appellant held that the opposed patent did not show that the above distinguishing features had any technical effect on the film properties. For this reason the problem to be solved should be formulated as the provision of an alternative film with good optical properties.

(b) According to the respondent, in view of the fact that the haze and the clarity are distinguishing features (between claim 1 and D5), the logical consequence is that the optical properties of a film according to granted claim 1 must be improved compared to a film derived from example 5 of D5.

(c) In that respect, the Board notes that a problem to be solved in the opposed patent is to provide films with good optical properties (see paragraphs [0001] and [0003]). Since the low haze and the high clarity of the film are features which distinguish the subject-matter of claim 1 from D5, the Board must come to the conclusion that the problem of providing a film with improved optical properties is automatically achieved over the whole scope of granted claim 1.

Consequently, the objective problem to be solved may be formulated as to provide a film with improved optical properties.

(d) In the statement of grounds of appeal, the appellant argued that the haze and clarity could not be part of the problem to be solved (see page 3, fourth paragraph). The Board agrees with the

appellant on that particular point. In the communication under Article 15(1) RPBA 2020, the Board initially raised the question as to whether it was possible to have both haze and clarity as distinguishing features, and a problem to be solved closely related to the said distinguishing features, namely the improvement of the optical properties (see bridging paragraph between pages 4 and 5). However, this question was not disputed by the parties at the oral proceedings and will therefore be left unanswered. In any event, the Board considers that the answer to this question is irrelevant to the following assessment of obviousness, since inventive step could be acknowledged without taking into account the contributions of haze and clarity as distinguishing features.

3.1.3 Obviousness

It remains to be evaluated whether or not the claimed solution, starting from the closest prior art and in view of the objective technical problem, would have been obvious to the skilled person.

(a) During the oral proceedings, the appellant argued that it was obvious in view of D6 to reduce the MWD of the polypropylene composition (corresponding to distinguishing feature (ii)) in order to improve the optical properties of the film. In addition, it would be known that switching from a batch process of D5 to a continuous process automatically results in a narrower MWD. The appellant further pointed out that the compositions of D5 were all suitable for the production of films.

(b) The respondent contended that D5 did not mention that the optical properties could be affected by the MWD. Instead D5 would teach that a low amount of xylene solubles (XS) would result in a good transparency (see D5, paragraph [0003]). Furthermore neither D5 nor D6 would direct the skilled person towards the subject-matter of granted clam 1.

(c) While the Board agrees that distinguishing feature (i) (composition in the form of a film) is obvious in view of the teaching of D5 (see paragraph [0001]), it is also noted that the effect of the distinguishing feature (ii) (MWD) on optical properties cannot be derived from D5 alone. In fact, D5 even teaches away from the subject-matter of granted claim 1, since a MWD above 6.0 is preferred (see paragraph [0014]). Therefore, based on D5 alone, the skilled person would have no reason to decrease the MWD of the composition of example 5 of D5 in order to improve the optical properties of a film made thereof.

The appellant argued that it would have been obvious to the skilled person to replace the batch process of D5 by a continuous process in order to reduce the MWD of the polypropylene composition. However the relevant question for the evaluation of obviousness is not whether the skilled person could have modified the teaching of the prior art so as to arrive at the claimed subject-matter, but whether s/he would have done so in the expectation of solving the technical problem posed, which is here to improve the optical properties of a film (see Case Law, *supra*, I.D.5 "Could-would approach"). However, as noted previously, no such

improvement can be expected from the teaching of D5 alone.

(d) With regard to D6, the Board notes that the effect of the MWD on the film transparency is not fully clear. While a MWD of 4.0 seems to be advantageous for a film thickness of 30 µm (compared to a MWD of 6.1), the results are contradictory for a film thickness of 70 µm (see D6, table 2).

Furthermore, and more importantly, it has not been shown that the teaching of D6 could lead to a polypropylene composition having a haze and a clarity according to granted claim 1. In fact, in the first decision T 2104/16, the Board came to the same conclusion for the relevant examples of D6 (see T 2104/16, page 15, fourth and fifth paragraph). This conclusion reached in T 2104/16 is binding on the present Board in view of Article 111(2) EPC, which applies *mutatis mutandis* to the present facts (see point 1. above). Therefore, even if the teaching of D6 were to be followed, the Board (being bound by the first decision) has no reason to consider that the skilled person would be able to obtain a film according to claim 1.

3.1.4 Under these circumstances, the subject-matter of granted claim 1 is not obvious in view of D5 as the closest prior art.

3.2 D6 as the closest prior art

3.2.1 Document D6 and in particular example 1 thereof was considered as a starting point for the assessment of inventive step both in the decision (see page 8, point

2.4.1) and by the appellant (see statement of grounds of appeal, page 6, point 2.2.1).

(a) The respondent contended that the purpose of the contested patent was to provide a polypropylene composition having *inter alia* a good processability and in particular a low coefficient of friction (see paragraph [0004] of the patent). A similar purpose was mentioned in D5 (see paragraph [0003]). As D6 was silent on the issue of processability, D5 (and not D6) was the closest prior art for the subject-matter of the granted claims (see rejoinder to the statement of grounds of appeal, page 3, point 3.3).

(b) Irrespective of whether or not D6 is closer to the subject-matter of claim 1 than D5, the relevant question for the Board is whether D6 represents a realistic starting point for arriving at the claimed invention (see also Case Law, *supra*, I.D. 3.4.1).

(c) The opposed patent pertains to polypropylene films with good optical properties, processability (in particular a low coefficient of friction) and mechanical properties for use in the packaging of food or medicaments (see paragraphs [0002], [0004] and [0005]). Similarly D6 relates to polypropylene films with good transparency and mechanical properties. In addition, the films of D6 can also be used for the packaging of food (see D6, page 2, lines 1 to 5). While it is true that D6 does not mention the problem of reducing the coefficient of friction, this document is nevertheless directed to similar products and applications as the opposed patent.

Therefore the Board is of the opinion that D6 is a realistic starting point to analyse inventive step of the subject-matter of claim 1.

3.2.2 Distinguishing features

(a) In a first line of argument (see statement of grounds of appeal, point 2.2.1), the appellant held that the subject-matter of granted claim 1 differed from D6 in that the polypropylene composition was characterised by :

(i) a haze (as defined therein, i.e. determined using a specific standard on a film with a thickness of 50 µm) of not more than 3.5 % and

(ii) a clarity (as defined therein, i.e. determined using a specific standard on a film with a thickness of 50 µm) of at least 96.0 %.

During the oral proceedings, the appellant put forward a second line of argument considering that features (i) and (ii) were implicit properties of the film of example 1 of D6.

(b) The respondent considered that features (i) and (ii) were distinguishing features between the subject-matter of claim 1 and D6 and argued that the appellant's second line of argument was not supported by any evidence.

(c) In this respect, the Board refers to the conclusions of the Board in the first appeal case

T 2104/16 (see page 15, fourth and fifth paragraph). In that decision, the Board held that:

> "it is not possible on the basis of the values for haze reported in D6 comparative example 1 and D7 comparative example 2 reliably to derive or even approximately to estimate the haze and clarity values for a film of 50 micrometres thickness."

For this reason, the novelty of the subject-matter of granted claim 1 over D6 was acknowledged considering that it was not possible to derive the haze and clarity of a film of thickness 50 µm (as defined in granted claim 1) from the information, in particular regarding haze, disclosed in D6 in respect of films having different thicknesses.

(d) The appellant's second line of argument runs counter the findings of T 2104/16 in the context of novelty. In particular, should the Board in the present composition conclude that features (i) and (ii) are no distinguishing features over the disclosure of example 1 of D6, it would come to a conclusion opposite to the assessment of novelty in the first appeal case, albeit the facts remained the same. The second line of argument cannot be accepted in view of the binding effect of the findings in T 2104/16 (see point 1. above).

(e) Under these circumstances, the Board considers that the subject-matter of claim 1 differs from example 1 of D6 in that the composition is characterised by

(i) a haze (as defined therein) of not more than 3.5 % and

(ii) a clarity (as defined therein) of at least 96.0 %.

3.2.3 Objective problem to be solved

(a) The appellant held that the opposed patent did not show that the above distinguishing features had any technical effect on the film properties. For this reason the problem to be solved should be formulated as the provision of an alternative film.

(b) According to the respondent, in view of the fact that the haze and the clarity are distinguishing features (between claim 1 and D6), the logical consequence is that the optical properties of a film according to granted claim 1 must be improved compared to a film derived from example 1 of D6.

(c) Since the low haze and the high clarity of the film are features which distinguish the subject-matter of claim 1 from D6, the Board must conclude that the problem of providing a film with improved optical properties is automatically achieved over the whole scope of granted claim 1.

Consequently and in view of the above considerations (see point 3.1.2(d) of the Reasons), the objective problem to be solved may be formulated as to provide a film with improved optical properties.

3.2.4 Obviousness

It remains to be evaluated whether or not the claimed subject-matter, starting from D6 and in view of the

objective technical problem, would have been obvious to the skilled person.

In the present case, it was not disputed between the parties that the distinguishing features over D6 correspond essentially to the problem to be solved and thus do not contribute to the technical solution. Therefore, in the Board's view, the question to be answered for the assessment of obviousness should be limited to whether the skilled person, wishing to improve the optical properties of the films of D6, would have been able to modify the teaching of D6 so as to obtain a polypropylene composition with haze and clarity as defined in granted claim 1 (i.e. with the features (i) and (ii)).

(a) The appellant argued that the selection of specific values for haze and clarity did not involve an inventive step. In fact the appellant repeated several times during the oral proceedings before the Board that the optical properties of the film of D6 should implicitly fulfil the haze and the clarity as defined in granted claim 1.

(b) In this respect, the arguments put forward previously also apply (see points 3.1.3 (d) and 3.2.2 (c) of the Reasons). In summary, it has not been shown that the teaching of D6 could lead to a polypropylene film having a haze and a clarity according to granted claim 1. Therefore, even if the teaching of D6 were to be followed, the Board has no reason to believe that the skilled person would be able to obtain a film according to claim 1.

3.2.5 Under these circumstances, the subject-matter of granted claim 1 is not obvious in view of D6 as the closest prior art.

3.3 D10 as the closest prior art

3.3.1 The appellant objected in their statement of grounds of appeal that the subject-matter of claim 1 lacked an inventive step over D10 as the closest prior art.

3.3.2 The respondent contested the admittance of this objection into the proceedings on the ground that it was late-filed and should have been raised before the opposition division.

3.3.3 The Board notes that the present objection has not been raised during opposition proceedings and has not been dealt with in the contested decision. Therefore it does not form part of the appeal proceedings in the sense of Article 12(2) RPBA 2020 and its admission as a new objection to the appeal proceedings is subject to the discretionary power of the Board in accordance with Article 12(4) to (6) RPBA 2020.

3.3.4 In the present case, the Board sees no reason why this objection could not have been raised during the opposition proceedings, given that D10 was initially filed with the notice of opposition. Nor has the appellant explained why this new objection of lack of inventive step was submitted for the first time in the appeal proceedings.

3.3.5 Under these circumstances, the Board found it appropriate to exercise its discretion under Article 12(6) RPBA 2020 not to admit into the proceedings the objection of lack of inventive step over D10.

3.4 It follows that none of the objections of lack of inventive step raised against granted claim 1 is successful.

4. Claim 10 as granted

According to the appellant, the subject-matter of claim 10 lacks an inventive step over document D6 as the closest prior art.

4.1 D6 as the closest prior art

The respondent contested the choice of D6 for the reasons set out in relation to claim 1 (see above point 3.2 (a)).

In that respect, the Board came to the conclusion that D6 was a realistic starting point for assessing inventive step of the subject-matter of claim 1 and has therefore no reason to come to a different conclusion as far as claim 10 is concerned (see above point 3.2 (b) and (c)).

4.1.1 Distinguishing features

The parties agreed that the subject-matter of claim 10 differed from D6, in particular example 1 thereof, in that the polypropylene composition was characterised by an amount of volatiles of 50 microgram C/g or less. The Board has no reason to depart from that view.

For the sake of completeness, it is pointed out that the respondent identified a further distinguishing feature. However, as noted previously, this line of

defence was not admitted into the proceedings (see above point 2.).

4.1.2 Objective problem to be solved

The parties also agreed that the objective problem to be solved could be formulated as the provision of a polypropylene composition with improved suitability for the packaging of food and medical products.

The Board has also no reason to deviate from that view.

4.1.3 Obviousness

It remains to evaluate whether it was obvious for the skilled person wishing to provide a propylene composition with improved suitability for the packaging of food or medical products to reduce the amount of volatiles to 50 microgram C/g or less.

(a) According to the appellant, the skilled person wishing to solve the above problem, would have had no difficulty to reduce the level of volatiles by purifying the polypropylene composition of D6.

(b) The respondent contended that it was not obvious for the skilled person to obtain a composition with less 50 microgram C/g of volatiles while maintaining the other properties of a film derived from said composition. Furthermore, no evidence was provided that the reduction of the volatiles in a polypropylene composition would belong to common general knowledge.

(c) In the present case, the parties have not contested that the presence of volatiles in packaging should

generally be avoided. This is also consistent with the teaching of the opposed patent (see paragraph [0005]). From this point of view, it is clear to the Board that a person skilled in the art would have wanted to reduce the amount of volatiles in order to solve the objective technical problem. It remains to be assessed whether the level of volatiles (below 50 microgram C/g) can justify recognition of an inventive step.

(d) Whilst it is true that the appellant has not provided evidence of common general knowledge of methods suitable for reducing volatiles, the Board considers that said methods are notoriously well-known in the present technical field. For example, the skilled person cannot ignore that a treatment with heat and/or under reduced pressure is suitable for that purpose. Furthermore, contrary to the respondent's view, it is not credible that the skilled person could not, with sufficient time and effort, achieve a level of volatiles below 50 microgram C/g. In any event, the respondent did not provide any evidence that this level was particularly challenging.

(e) The respondent further argued that the skilled person should not only be able to reduce the volatile content of the polypropylene composition according to the closest prior art, but also to do so while maintaining the other properties of a film derived from that propylene composition (such as the processability or the mechanical properties). The Board cannot follow this line of argument as no evidence was provided that a reduction of the amount of volatiles that would be necessary in order to achieve an amount of volatiles according

to granted claim 10 would have any effect on said film properties.

4.1.4 Under these circumstances, the Board concludes that it was obvious to the skilled person to reduce the amount of volatiles below 50 microgram C/g in the polypropylene compositions according to example 1 of D6 in order to provide a composition with improved suitability for the packaging of food and medical products.

4.2 Therefore, the subject-matter of granted claim 10 does not involve an inventive step over document D6 alone and the respondent's main request is not allowable.

Auxiliary request I

5. Admittance

5.1 Auxiliary request I was filed by the respondent as new auxiliary request I with letter of 10 August 2023, i.e. after notification of the summons to oral proceedings. Thus the admittance of this request is governed by Article 13(2) 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.

As noted previously (see point 2.4 of the Reasons), the examination under Article 13(2) RPBA 2020 is carried out in two steps.

5.2 The first question to be answered is therefore whether auxiliary request I constitutes an amendment of the respondent's case.

5.2.1 Auxiliary request I differs from the main request merely in that claims 10 to 13 were deleted.

5.2.2 The parties did not contest that auxiliary request I was formally an amendment of the respondent's case. In this respect, the present Board agrees with the parties and endorses the line of case law set out in T 0713/14 (points 4.2 and 4.3 of the Reasons), T 0494/18 (point 1.4 of the Reasons), T 2091/18 (points 4.1 and 4.2 of the Reasons), T 2920/18 (point 3.6 of the Reasons) or T 2295/19 (point 3.4 of the Reasons) which likewise concerned deletions of claims or of alternatives embodiments within claims and regarded them as amendments.

5.3 The second question to be answered is whether there are exceptional circumstances, supported by cogent reasons, which justify the admittance of auxiliary request I into the appeal proceedings.

5.3.1 According to the respondent, auxiliary request I is clearly allowable, it does not introduce any new issues, but rather consolidates the claim set to independent claim 1 and its dependent claims by deleting other independent claims (and their dependent claims), thereby simplifying the procedure. No additional discussion as to the allowability of the claims would be necessary. Finally, the deletion of granted claims 10 to 13 was already envisaged in lower ranking requests which were filed with the rejoinder to the statement of grounds of appeal.

5.3.2 The appellant held that the successful objection of lack of inventive step had been on file throughout the opposition proceedings. Thus auxiliary request I could

and should have been submitted at the latest with the rejoinder to the statement of grounds of appeal. The appellant further argued that auxiliary request I was not converging with the lower ranking auxiliary requests.

5.3.3 The Board does not dispute that the successful objection of lack of inventive step against granted claim 10 was present at least from the onset of the appeal proceedings. Thus, the filing of a set of claims in which granted claims 10 to 13 were deleted would already have been possible and reasonable with the rejoinder to the statement of grounds of appeal.

However, in similar cases, some Boards have acknowledged exceptional circumstances when the admittance of the amendments was neither detrimental to procedural economy, nor to the convergent approach laid down in the RPBA 2020, 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 e.g. 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; T 2920/18, points 3.13 to 3.15 of the Reasons; T 2295/19, points 3.4.12 to 3.4.14 of the Reasons; T 0499/20, point 7.3.3 of the Reasons). The present Board agrees with this approach and finds it applicable to the present case.

5.3.4 The Board notes that the set of claims as granted can be divided into the following two main embodiments:

(a) a film comprising a polypropylene composition (independent claim 1 and dependent claims 2 to 9),

(b) a polypropylene composition (independent claim 10), a process for preparing a film using a composition according to claim 10 (independent claim 11) and the use of a composition according to claim 10 (independent claim 12 and dependent claim 13).

In the previous assessment of inventive step, the Board came to the conclusion that granted claim 1 corresponding to embodiment (a) involved an inventive step over over D5 or D6 as the closest prior art. Conversely it was held that the subject-matter of granted claim 10 corresponding to embodiment (b) lacked an inventive step over D6 as the closest prior art.

5.3.5 With the deletion of granted claims 10 to 13 in auxiliary request I, embodiment (b) is entirely deleted so that the successful objection of lack of inventive step over D6 is no longer relevant. Furthermore, the question of inventive step of the remaining claims does not need to be further discussed as the corresponding objection against granted claim 1 (or more generally embodiment (a)) was fully addressed within the framework of the main request. Auxiliary request I is thus clearly allowable. During the oral proceedings, the appellant also acknowledged that there was no further pending objections as far as claims 1 to 9 of auxiliary request I were concerned.

Thus, auxiliary request I 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.

Finally, auxiliary request I is converging with the higher ranking request. The question whether the lower ranking requests are diverging or not is in itself not

relevant for the admittance of auxiliary request I, as these requests could become relevant only if auxiliary request I is not admitted or considered unallowable.

5.4 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 to admit auxiliary request I into the proceedings.

6. Allowability

As noted above, claim 1 of auxiliary request I is identical to granted claim 1, so that the above conclusion regarding inventive step also applies to auxiliary request I (see point 3. of the Reasons).

In addition, the appellant confirmed at the end of the oral proceedings before the Board that they had no further objections against auxiliary request I.

7. As all the appellant's objections to auxiliary request I are unsuccessful, the patent is to be maintained on the basis of this request.

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 in amended form on the basis of claims 1 to 9 of auxiliary request I filed with letter of 10 August 2023 and after any necessary consequential amendment of the description.

The Registrar: The Chairman:

D. Hampe O. Dury

Decision electronically authenticated