

Internal distribution code:

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

**Datasheet for the decision
of 8 July 2021**

Case Number: T 2432/18 - 3.3.03

Application Number: 12766407.6

Publication Number: 2751195

IPC: C08L23/10, C08K5/00

Language of the proceedings: EN

Title of invention:

POLYPROPYLENE COMPOSITION WITH IMPROVED ADDITIVE RETENTION

Patent Proprietor:

Total Research & Technology Feluy

Opponent:

Basell Poliolefine Italia S.r.l.

Relevant legal provisions:

EPC Art. 56, 100(b)

Keyword:

Admissibility of appeal - (yes)
Sufficiency of disclosure - (yes)
Inventive step - (yes)

Decisions cited:

T 0019/90, T 0890/02, T 0682/11



Beschwerdekammern
Boards of Appeal
Chambres de recours

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

Case Number: T 2432/18 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 8 July 2021

Appellant: Basell Poliolefine Italia S.r.l.
(Opponent) Via Pontaccio 10
20121 Milano (IT)

Representative: LyondellBasell
c/o Basell Poliolefine Italia
Intellectual Property
P.le Donegani 12
44122 Ferrara (IT)

Respondent: Total Research & Technology Feluy
(Patent Proprietor) Zone Industrielle C
7181 Seneffe (BE)

Representative: Raboin, Jean-Christophe
Total Research & Technology Feluy
Zone Industrielle C
7181 Seneffe (BE)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 31 July 2018
rejecting the opposition filed against European
patent No. 2751195 pursuant to Article 101(2)
EPC.**

Composition of the Board:

Chairman D. Semino
Members: M. Barrère
W. Ungler

Summary of Facts and Submissions

I. The appeal of the opponent lies against the decision of the opposition division posted on 31 July 2018 rejecting the opposition against European Patent number 2 751 195.

II. Claim 1 as granted read as follows:

"1. Polypropylene composition comprising

(i) x wt% of component (A), said component (A) being a random copolymer of propylene and ethylene produced with a metallocene-based polymerization catalyst and having a molecular weight distribution, defined as Mw/Mn, of at most 4.0, wherein x is at least 70;

(ii) y wt% of component (B), said component (B) being an additive that migrates to the surface of said polypropylene composition, wherein y is at least 0.001 and at most 2.0; and

(iii) (100 - x - y) wt% of component (C), said component (C) being one or more thermoplastic polymers different from component (A) and wherein said thermoplastic polymer is not a metallocene polypropylene homopolymer,

with the provision that $x + y \leq 100$, and with wt% relative to the total weight of said polypropylene composition,

wherein said polypropylene composition has a gloss at 20° of at least 75, determined on 1 mm thick plaques

having been produced by injection molding and stored at 40°C ±1°C for three days before measuring gloss at 20° in accordance with ASTM D 2457."

The remaining claims of that request are not relevant to the present decision.

III. A notice of opposition had been filed against the patent, requesting the revocation of the patent in its entirety.

IV. The following documents were *inter alia* cited in the opposition division's decision:

D5: US 2010/0081743 A1

D10: EP 2 411 202 B9

V. In that decision the opposition division held, among others, that:

- The late-filed document D10 was not admitted into the proceedings because it did not disclose, *prima facie*, any information that would be relevant for the outcome of the assessment of sufficiency of disclosure;
- The patent in suit met the requirements of sufficiency of disclosure. With regard to the selection of an additive B according to claim 1, it was considered that the person skilled in the art knew from the common general knowledge which additives migrated to the surface of a polypropylene composition and which additives did not;

- The subject-matter of claim 1 was novel over the available prior art. The details of this finding are not relevant for the present decision;
- The subject-matter of claim 1 was inventive over D5 as the closest prior art. Granted claim 1 differed from samples C and D of this document in that the composition comprised an additive (B) and the molecular weight distribution of the polymer (A) was below 4. The objective problem to be solved was defined as the provision of a composition having reduced migration of the additive. It was concluded that D5 alone or in combination with the available prior art did not provide an incentive to use an additive (B) with a polymer (A) as defined in claim 1 in order to reduce the migration of additives.

Therefore, the opposition was rejected.

VI. With the statement setting out the grounds of appeal the opponent (appellant) requested that the decision under appeal be set aside and that the patent be revoked. Initially the appellant contested the finding of the opposition division on sufficiency of disclosure, novelty and inventive step and requested the late filed document D10 to be admitted into the proceedings.

VII. In the rejoinder to the statement of grounds, the patent proprietor (respondent) requested that the appeal be rejected as inadmissible. In case the Board considered the appeal to be admissible, dismissal of the appeal and maintenance of the patent as granted were requested. In the alternative, maintenance of the patent in amended form on the basis of one of the auxiliary requests 1-9 filed with that rejoinder was

requested. The respondent further requested that document D10 be not admitted into the proceedings.

VIII. By letter of 28 January 2021, the parties were summoned to oral proceedings to be held on 8 July 2021.

IX. The Board specified issues to be discussed at oral proceedings in a communication dated 3 May 2021. In particular it was held that the appeal could be seen as admissible in view of the fact that the appellant provided at least a reasoning as to why the finding of the opposition division on sufficiency of disclosure would be erroneous.

X. With letter of 5 May 2021 the respondent informed the Board that they would not be represented at the oral proceedings.

XI. With the explicit agreement of the appellant, oral proceedings were held before the Board on 8 July 2021 by video conference.

During oral proceedings, the appellant withdrew its request that document D10 be admitted into the proceedings and its objections of lack of novelty against the subject-matter of claim 1 as granted.

Furthermore, out of the three lines of attack against inventive step, the respondent maintained only the third one which was based on D5 as closest prior art (see statement of grounds of appeal, point 3.3).

XII. The appellant's arguments, insofar as relevant to the decision, may be summarised as follows:

(a) Patent as granted

(i) Sufficiency of disclosure

Random propylene ethylene copolymer (A)

Granted claim 1 required that the composition be characterised by a gloss at 20° of at least 75 after 3 days of storage. This implied that the initial gloss of the composition and therefore of the copolymer (A) should be at least 75. Thus the opposed patent had to teach how to obtain a copolymer (A) with said gloss. However it was known that some copolymers prepared from a metallocene catalyst were not characterised by a gloss of at least 75 and the opposed patent did not teach how to prepare said copolymer. In particular the examples of the patent in suit did not mention the exact nature of the metallocene-based catalyst and therefore could not be reproduced.

Migrating additive (B)

The additive (B) was defined as having the tendency to migrate to the surface of the composition. In the contested decision, the opposition division had limited the definition of the additives (B) to anti-static agents. However the patent in suit was not limited to anti-static additives. The person skilled in the art wishing to carry out the invention over the whole scope of claim 1 would have to select a random propylene copolymer, select an additive and then measure after three days the gloss to see if a composition according to claim 1 could be obtained. This constituted an undue burden for a person skilled in the art.

(ii) Inventive step

D5 was the closest prior art to the subject-matter of claim 1. It disclosed a composition comprising:

a propylene-ethylene based random copolymer obtained by using metallocene-based catalyst (see D5, paragraph [0005] and claim 1) and

a migrating additive (see D5, paragraph [0051]).

D5 further taught that the molecular weight distribution of the copolymer was in the range of 1,5 to 20, preferably 2 to 7 (see paragraphs [0056]-[0057]). The composition of claim 1 only differed from D5 in that the composition was characterised by a gloss of at least 75 (after 3 days of storage). Since this value was arbitrary, no problem was solved. Simply by following the teaching of D5 the skilled person could obtain the composition of claim 1 without any inventive activity.

During oral proceedings, a similar approach was presented, however, the distinguishing feature was considered to be the molecular weight distribution of copolymer (A).

XIII. The respondent's arguments, insofar as relevant to the decision, may be summarised as follows:

(a) Admissibility of the appeal

The statement of grounds of appeal did not cover all the points on which the decision was based. In particular, the appellant did not provide any reasoning as to why the decision of the opposition division

regarding novelty should be set aside. Furthermore, with respect to the inventive step argumentation presented by the appellant (part 3 of the statement of grounds of appeal), no causal explanation was provided as to why the decision taken by the opposition division would be incorrect. The appeal should therefore be rejected as inadmissible.

(b) Patent as granted

(i) Sufficiency of disclosure

Random propylene ethylene copolymer (A)

Claim 1 did not cover the copolymer (A) only but a composition comprising said copolymer and having a gloss higher than 75. The appellant focused on the gloss of component (A) thereby ignoring the other features of the composition. Furthermore, contrary to the appellant's view, the teaching of the opposed patent with regard to the copolymer (A) was not limited to the choice of the catalyst but included additional requirements for component A.

Migrating additive (B)

The patent provided all necessary information and guidance that were required to select an additive (B) according to claim 1. Migrating additives were well known in the art and specific examples thereof were disclosed in the description and in the example section of the patent. Based on the description provided in the patent, the skilled person, willing to understand the invention, had sufficient information on how to carry out the invention. In addition, the appellant did not provide any experimental evidence demonstrating that

when using the teaching of the patent the skilled person was unable to obtain a composition as set out in claim 1.

(ii) Inventive step

D5 was the closest prior art to the subject-matter of claim 1. However D5 did not disclose any propylene composition with the specific combination of features as required by claim 1. With respect to Samples C and D of D5 (see [0073]-[0074]) no information was given concerning the molecular weight distribution of the polymer. The blending of an additive with Samples C and D was not reported and the gloss value for articles made with these samples was not disclosed. Based on the examples of the patent in suit, the objective problem to be solved was the provision of a composition having an improved additive retention. D5 did not teach or suggest that a polypropylene composition having the claimed combination of features might solve the above problem. Consequently the subject-matter of claim 1 was inventive over D5 as closest prior art.

- XIV. The appellant requested that the decision under appeal be set aside and that the patent be revoked.

- XV. The respondent requested that the appeal be rejected as inadmissible, in the alternative that the appeal be dismissed, in the further alternative that the patent be maintained in amended form on the basis of one of the auxiliary requests 1-9 filed with the rejoinder to the statement of grounds of appeal.

Reasons for the Decision

1. Admissibility of the appeal

According to the respondent the statement of grounds of appeal does not cover all the reasons on which the decision is based. The appeal should therefore be rejected as inadmissible.

The Board notes that the opposition was filed against the patent on the grounds of:

Article 100(a) EPC (lack of novelty and lack of inventive step) and

Article 100(b) EPC (insufficient disclosure).

In the appealed decision the opposition division came to the conclusion that none of these grounds prejudices maintenance of the opposed patent as granted. Consequently, for the opponent as appellant, it is sufficient to show that one ground prejudices maintenance of the opposed patent in order for the appealed decision to be set aside (reference is made to Case Law of the Boards of Appeal, 9th edition 2019, V.A.2.6.3 e) and as an example to T682/11 of 3 December 2014, point 1). In the present case, it is not contested that the appellant has provided at least a reasoning as to why the finding of the opposition division on sufficiency of disclosure is erroneous (see grounds of appeal, paragraph 1). It is also not contested that the reasoning is understandable. On this basis the Board comes to the conclusion that the appeal is admissible.

2. Patent as granted

2.1 Sufficiency of disclosure

2.1.1 The random propylene ethylene copolymer (component A)

According to the appellant the opposed patent does not teach how to obtain a random propylene ethylene copolymer having a gloss at 20° higher than 75 after three days of storage.

The Board cannot follow this objection for the following reasons:

With regard to the requirement of sufficiency of disclosure, an objection of lack of sufficient disclosure presupposes that there are serious doubts, substantiated by verifiable facts (see Case Law, *supra*, II.C.9, in particular T 19/90, OJ EPO 1990, 476 and T 890/02, OJ EPO 2005, 497). The appellant did not provide evidence showing that a copolymer (A) as defined in claim 1 and prepared according to the teaching in the patent would not be characterized by a gloss as set out in claim 1. In this respect it is relevant to note that the appellant withdrew at the oral proceedings the request to admit document D10 which was previously indicated as a possible source of evidence against sufficiency of disclosure. In the absence of any such evidence, the objection of the appellant is considered to be a mere allegation which is not sufficient to cast doubts as to the disclosure of the invention.

Similarly the alleged lack of reproducibility of the examples which was mentioned for the first time at the oral proceedings before the Board and was not backed up

by evidence cannot cast doubts on the sufficiency of the disclosure.

Therefore the Board does not see any reason to depart from the opposition division's conclusions.

2.1.2 Migrating additive (component B)

In granted claim 1 component B is defined as an additive that migrates to the surface of the polypropylene composition. According to the appellant the opposed patent is insufficiently disclosed in view of said additive.

As to the selection of a migrating additive, the Board notes that the opposed patent provides a non limiting list of options (see paragraphs [0051]-[0057]). It is furthermore pointed out that the migration of additives (also called blooming) is a common problem in the present technical field (see for instance D5, page 1, paragraph [0002]), which implies that the person skilled in the art should either:

know from common knowledge or experience which additives migrate to the surface of a composition and which do not (see section 2.2.2 of the decision with reference to the "Plastics Additives Handbook") or

in case of doubt, be able to determine whether an additive can migrate or not.

In any case also for component B no evidence has been provided by the appellant that the identification of the additive would result in an undue burden.

Consequently, the Board cannot recognise any undue burden for a man skilled in the art wishing to select a migrating additive and, thus, does not see any reason to depart from the opposition division's finding.

2.2 Novelty

As the appellant withdrew all objections of lack of novelty, there is no need for the Board to take position on this issue.

2.3 Inventive step

2.3.1 Closest prior art

Both parties, as the opposition division, consider that D5 is suitable as the closest prior art document. The Board sees no reason to deviate from that view.

2.3.2 Distinguishing feature(s) over D5

In the written submissions of the appellant, it was held that claim 1 differed from D5 in that the composition is characterized by a gloss at 20° of at least 75 (according to the measurement conditions of claim 1). During oral proceedings, a different distinguishing feature was identified, namely the molecular weight distribution of copolymer (A).

The Board does not agree with this assessment of D5 for the following reasons:

It is not contested that D5 discloses in one embodiment a random copolymer of propylene and ethylene produced with a metallocene-based polymerization catalyst (see D5, paragraph [0005]) and mentions in the discussion of

a polymerisation process anti-static agents (which are migrating additives, see D5, paragraph [0051]). As to the molecular weight distribution it is mentioned that it might be between 1.5 and 20 (see D5, paragraph [0056]), thereby having values which partly overlap with the range in claim 1 (at most 4.0). However, this document fails to disclose the combination of said features as required in claim 1 (let alone in the weight percentages of the components A, B and C).

The identification of the distinguishing features presupposes that a clear starting point (springboard) is selected in D5. However in the present case, depending on the starting point different distinguishing features may be identified.

For instance, if the examples of D5 (see samples C and D) are considered, as was the case in the decision (point 2.4.2), it is pointed out that the exemplified compositions do not contain a migrating additive (B) and the molecular weight distribution of the copolymer is not known. Furthermore the gloss of the compositions is not disclosed. Consequently one has to come to the conclusion that claim 1 differs from the examples of D5 in that:

- i) the molecular weight distribution of the copolymer (A) is at most 4;
- ii) the composition comprises y wt% of component (B), said component (B) being an additive that migrates to the surface of said composition, wherein y is at least 0.001 and at most 2.0; and
- iii) the composition has a gloss at 20° of at least 75, determined on 1 mm thick plaques having been produced by injection molding and stored at 40°C \pm 1°C for three days before measuring gloss at 20° in accordance with ASTM D 2457.

Likewise if the claims of D5 (such as claim 2) are chosen as starting point, one has to come to the conclusion that claim 1 differs therefrom in that:

- i) the propylene base polymer is a random copolymer of propylene and ethylene,
- ii) the molecular weight distribution of the copolymer (A) is at most 4;
- iii) the additive is an additive that migrates to the surface of the composition; and
- iv) the composition has a gloss at 20° of at least 75, determined on 1 mm thick plaques having been produced by injection molding and stored at 40°C ±1°C for three days before measuring gloss at 20° in accordance with ASTM D 2457.

A similar conclusion would be reached if one had to select a specific embodiment of the description of D5 as the starting point.

Consequently, the objection of the appellant is based on a starting point which is not clearly and unambiguously disclosed in D5 and the distinguishing features derived therefrom are thus incomplete.

In the absence of a disclosure in D5 corresponding to the starting point of the appellant (both according to their arguments in writing and at the oral proceedings) the reasoning of the appellant cannot be followed by the Board and can therefore not be successful.

Further lines of attack of lack of inventive step submitted with the statement setting out the grounds of appeal were not maintained at the oral proceedings before the Board.

Therefore, the Board does not see any reason to depart from the opposition division's findings on the basis of the reasoning of the appellant.

3. As all of the objections of the appellant against the main request of the respondent fail, the appeal is to be dismissed with the result that the patent remains maintained as granted.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



B. ter Heijden

D. Semino

Decision electronically authenticated