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**Datasheet for the decision  
of 21 December 2023**

**Case Number:** T 0057/21 - 3.3.03

**Application Number:** 16701463.8

**Publication Number:** 3189101

**IPC:** C08L23/14, C08L23/12, C08K5/00

**Language of the proceedings:** EN

**Title of invention:**  
BIMODAL POLYPROPYLENE AND PROCESS FOR THE PREPARATION THEREOF

**Patent Proprietor:**  
TotalEnergies OneTech Belgium

**Opponent:**  
Basell Poliolefine Italia S.r.l.

**Relevant legal provisions:**  
EPC Art. 100(b), 111(1), 113(1)  
RPBA 2020 Art. 11, 12(3), 12(4), 12(5)  
EPC R. 42(1), 43(1)

**Keyword:**

Right to be heard - no opportunity to submit an additional auxiliary request during oral proceedings - substantial procedural violation (yes)  
Evidence submitted with the statement setting out the grounds of appeal - admitted (yes)  
Sufficiency of disclosure - main request (no)  
Auxiliary requests filed before the opposition division but not substantiated - taken into account (no)  
Auxiliary requests 17 to 20 submitted with the statement setting out the grounds of appeal - admitted (yes)  
Auxiliary request 17 - sufficiency of disclosure (yes)  
Remittal - special circumstances (yes)

**Decisions cited:**

G 0002/98



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

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Case Number: T 0057/21 - 3.3.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.03**  
**of 21 December 2023**

**Appellant:** TotalEnergies OneTech Belgium  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 25 November  
2020 revoking European patent No. 3189101  
pursuant to Article 101(3)(b) EPC.**

**Composition of the Board:**

**Chairman** D. Semino  
**Members:** F. Rousseau  
A. Bacchin

## Summary of Facts and Submissions

- I. The appeal by the patent proprietor lies against the decision of the opposition division revoking European patent No. 3 189 101.

The decision was based on the patent as granted as the main request and on auxiliary requests 1 to 16 all submitted with letter of 22 October 2019, the order of the auxiliary requests having been changed during the oral proceedings held on 24 September 2020.

- II. Claim 1 of the granted patent read as follows:

"1. A polypropylene composition (PPR) comprising:

(C) a first polypropylene homopolymer or random copolymer (PPR1) having a comonomer content from 0 to lower than the comonomer content of the second polypropylene,

(D) a second polypropylene (PPR2) which is a random copolymer of propylene and of the comonomer;

wherein:

- said polypropylene composition has a total comonomer content ranging from 0.25 and 4.5 wt% based on the total weight of said polypropylene composition,
- said comonomer is an alpha-olefin different from propylene,
- the melting temperature, measured by DSC based on ISO 3146, of the polypropylene composition ( $T_m(\text{PPR})$ ) is defined as

$T_m(\text{PPR}) > 165 - 6.9 * [\text{total comonomer content}] - 8.4 * [\text{comonomer content of the first polypropylene}]$ ,

- the difference between the melting temperature and the crystallization temperature, both measured by DSC, of the polypropylene composition ranges from 27 and 33,  
- a xylene soluble fraction (XS) of not more than 1.5 wt. %, and,  
- said polypropylene composition has a melt flow index ranging from 20 to 200 g/10 min, preferably from 20 to 100 g/10 min, more preferably from 20 to 50 g/10 min; more preferably from 20 to 40 g/10 min; the values of melt flow index being measured according to ISO 1133 at 230°C, under a 2.16 kg load."

III. The decision was taken having regard *inter alia* to the following documentary evidence:

D1: EP 2 113 591 A1

D12: Declaration of Fabrizio Piemontesi dated 23 July 2020.

IV. According to the reasons for the contested decision which are pertinent in the appeal proceedings:

(a) D12 submitted by the opponent with letter of 23 July 2020, i.e. two months before the oral proceedings, but within the time limit under Rule 116(1) EPC, was admitted into the proceedings.

*Main request - sufficiency of disclosure*

(b) The contested patent disclosed six examples whose description in paragraph [0088] of the specification was vague and did not go beyond specifying the use of a metallocene catalyst with a

dimethylsilyl-bridged bis(indenyl)zirconium dichloride as metallocene component and a "standard polymerization method in a reactor comprising two interconnected reaction zones".

Important details for their reproduction were missing, reference being made to declaration D12. Although the skilled person would be able to carry out polymerisation reactions using a catalyst of the type disclosed in the contested patent, the skilled person would have to carry out a research programme based on trial and error to find out the suitable process conditions so as to reproduce the examples of the contested patent, and even more to provide polypropylene compositions over the whole scope of granted claim 1. On that basis, it was concluded that the invention could not be performed over the whole scope claimed without undue burden.

- (c) The patentee's argument that no evidence had been provided by the opponent that the invention could not be carried out was not convincing.

Firstly, example 5 which had been prepared following the information given in paragraph [0088] of the contested patent led to a difference between the melting temperature and the crystallization temperature of 34 which was outside of the range required by granted claim 1.

Secondly, D1, which contained in its paragraph [0066] the same teaching as in paragraph [0088] of the patent in suit, demonstrated with (i) example 1 concerning a propylene polymer having an ethylene content of 0.4 wt% and a melting point of 150°C and (ii) comparative example 1 concerning a

homopolypropylene having a melting point of 152°C that the relation defined in granted claim 1 could not be met for small total ethylene contents like 0.4 wt%. In all the examples of the contested patent, the total comonomer content was within the narrow range of 1.8 to 2.1 wt%, which was significantly higher than the value of 0.4 wt% and a fortiori 0.25 wt% constituting the lower limit according to granted claim 1.

- (d) Accordingly, the ground of opposition under Article 100 (b) EPC prejudiced the maintenance of the patent as granted.

*Admittance of a new auxiliary request*

- (e) The patent proprietor's request during the oral proceedings to be given the opportunity to formulate and submit a new auxiliary request was not to be granted. No further auxiliary request apart from the 16 auxiliary requests already on file could be admitted into the proceedings, as it would be necessary to adjourn the oral proceedings in order to give the opponent a proper opportunity to address the sufficiency issue and the other grounds of opposition. The ground of opposition under Article 100(b) EPC had been raised in the notice of opposition and even if the written preliminary opinion of the opposition division was in favour of the patent proprietor, the latter had not been confronted with new facts or evidence during the oral proceedings and had enough time prior to the oral proceedings to submit auxiliary requests in response to the objections of sufficiency of disclosure.

*Auxiliary request 1 (auxiliary request 9 submitted with letter of 22 October 2019)*

(f) Although the total comonomer content had been restricted to 1.0 to 4.5 wt%, the lower limit of 1.0 wt% was still far remote from the range of 1.8 to 2.1 wt% used in the examples. The requirements of sufficiency of disclosure were not fulfilled at least for the same reasons as for the main request.

*Auxiliary requests 2 to 16 (auxiliary request 1 to 8 and 10 to 16 submitted with letter of 22 October 2019)*

(g) The patent proprietor did not wish to discuss any of auxiliary requests 2 to 16. Auxiliary requests 2 to 16 did not meet the requirements of sufficiency of disclosure at least for the same reasons as the main request.

(h) The contested patent was therefore revoked.

V. An appeal was filed by the patent proprietor (appellant).

VI. With their statement of grounds of appeal, the appellant filed the following additional documents:

D15: Declaration of Alain Standaert dated 2 April 2021  
D16: Nello Pasquini (Ed.), Polypropylene Handbook, 2nd Edition, Hanser, 2005, pages 312-314.

With the same letter, auxiliary requests 1 to 20 were also submitted, auxiliary requests 1 to 16 being indicated to correspond to the requests filed in response to the notice of opposition.



VII. Auxiliary request 17 comprised among others an amendment of the total comonomer content. Compared to claim 1 of the main request, claim 1 of auxiliary request 17 read as follows (with addition to the wording of granted claim 1 given in section II above in underlined, deleted portions in ~~struck-through~~ and unamended portions in *[brackets and .... italics]*):

"1. *[A polypropylene composition (PPR) comprising:]*

~~(CA)~~ *[a first polypropylene ..... second polypropylene]*

~~(DB)~~ *[a second polypropylene .....*

*- said polypropylene composition has a total comonomer content ranging from] ~~0.25~~1.5 and 42.5 wt% [based on the total weight of said polypropylene composition, .....*

*- said polypropylene composition has a melt flow index ranging] ~~from 20 to 200 g/10 min, preferably from 20 to 100 g/10 min, more preferably [from 20 to 50 g/10 min; more preferably from 20 to 40 g/10 min .... under a 2.16 kg load.]"~~*

The wording of claim 1 of the other auxiliary requests is not relevant for the present decision.

VIII. In preparation of the oral proceedings, a communication pursuant to Article 15(1) RPBA 2020 dated 15 November 2023 conveying the Board's provisional opinion was issued.

IX. The opponent (respondent) and the appellant replied to the Board's communication with letters of 27 November 2023 and 12 December 2023, respectively.

X. Having regard to the respondent's and appellant's submissions of 27 November 2023 and 12 December 2023, respectively, as well as the reasoning provided in the Board's communication, the Board issued a further communication dated 13 December 2023 in which it indicated among others its intention to set the contested decision aside and remit the case to the opposition division for further prosecution pursuant to Article 11 RPBA 2020 on the basis of auxiliary request 17, whose subject-matter in the Board's preliminary view met the requirements of sufficiency of disclosure.

XI. On the same day, both the appellant and the respondent informed the Board that their requests to hold oral proceedings were withdrawn on the condition that a decision was issued in accordance with the preliminary opinion of the Board indicated in its latest communication (dated 13 December 2023).

XII. Oral proceedings were therefore cancelled and the parties informed accordingly.

XIII. The requests of the parties were as follows:

The appellant requested that the decision of the opposition division be set aside and the case be remitted to the opposition division for consideration of the remaining grounds of opposition, either on the basis of the main request (patent as granted), or alternatively on the basis of one of auxiliary requests 1 to 20 submitted with the statement of grounds of appeal.

The respondent requested that the appeal be dismissed.

- XIV. The parties' submissions, in so far as they are pertinent to the present decision, may be derived from the reasons for the decision below. The contentious points essentially concerned the questions whether
- the refusal to grant the appellant the opportunity to file an additional auxiliary request during the oral proceedings amounted to a substantial procedural violation,
  - D15 and D16 should be admitted into the proceedings,
  - auxiliary requests 1 to 20 should be admitted into the proceedings,
  - the main request and auxiliary request 17 met the requirements of sufficiency of disclosure.

### **Reasons for the Decision**

#### *Right to be heard*

1. The appellant submits that its right to be heard within the meaning of Article 113(1) EPC was infringed during the oral proceedings, as, after the announcement of the opposition division's conclusion that the main request did not meet the requirements of sufficiency of disclosure, the appellant's request to have the opportunity to formulate and submit a new auxiliary request was not granted.

The opposition division justified its refusal to give the patent proprietor an opportunity to file a new auxiliary request by considering that the appellant had

not been confronted with new facts or evidence during the oral proceedings and had had enough time prior to the oral proceedings to submit auxiliary requests in response to the objections of sufficiency of disclosure.

- 1.1 In order to address this point, it is first necessary to consider the procedural development which led to the opposition division's finding on the main request, including in particular the parties submissions made in relation to sufficiency of disclosure prior to the oral proceedings.

In the notice of opposition (point 2, pages 2 to 4) it was submitted that the teaching given in the patent in suit and in D1 was the same, but that the polymer of example 1 of D1 with an ethylene content of 0.4 wt% did not exhibit a melting point higher than 162.24°C, as was required for such total content of comonomer by granted claim 1 in view of the inequation defined therein. Reference was not only made to a melting point of 150°C for the polymer of example 1 of D1, but also to a melting point of 152°C for the homopolymer of comparative example 1 of that document, both polymers being indicated to be produced with the same metallocene component used for the examples of the patent in suit. On that basis the opponent submitted that the patent in suit was silent on some additional process features which were needed in order to meet the inequation defined in granted claim 1.

With the reply to the notice of opposition (point 3.1, pages 4 and 5), the patent proprietor submitted that the teaching of the patent in suit was different from that of D1, as D1 did not teach to use of a mixture of two polypropylenes having a different content of

comonomer. Comparative example 1 of D1 was also not relevant, as it only concerned a homopolymer. It was therefore held by the patent proprietor that example 1 and comparative example 1 of D1 could not demonstrate that the claimed invention was insufficiently disclosed.

Based on those submissions, the opposition division issued a preliminary opinion dated 3 February 2020 in preparation of the oral proceedings according to which the requirements of sufficiency of disclosure were met (point 2.2 on page 4).

With letter of 23 July 2020, i.e. 9 months after the reply of the patent proprietor and only two months before the oral proceedings (within the time limit under Rule 116(1) EPC), additional submissions of the opponent in respect of sufficiency of disclosure were made (point 1, pages 1 to 9). These submissions were not only based on a new declaration D12 by one of the opponent's employees, but were far more extensive allowing to finally understand the very essence of the submissions concerning the melting points described for example 1 and comparative example 1 of D1 and why this was relevant to the issue of sufficiency of disclosure. In addition, these new submissions explained why, in the opinion of the opponent, a polypropylene polymer with a total ethylene content of 0.4 wt%, as used in example 1 of D1, could not fulfill the inequation defined in claim 1 of the patent in suit.

- 1.2 It is apparent from the reasons for the contested decision that the change of opinion of the opposition division was the consequence of the opponent's new submissions of 23 July 2020.

The respondent submits that declaration D12 had been submitted in reaction to the a statement made by the opposition division in their preliminary opinion issued in preparation for the oral proceedings, according to which the opponent had not provided evidence by verifiable facts that the claimed composition could not be obtained without undue burden.

This does not constitute a proper justification for filing new evidence. This statement of the opposition division is a simple observation resulting from the analysis of the parties' submissions, but which in no way constitutes an invitation to submit new evidence or a new point raised by the opposition division which would call for new submissions by the opponent. In this respect, the proprietor had referred in their reply to the notice of opposition to the absence of serious doubts substantiated by verifiable facts.

Since the preliminary opinion of the opposition division in relation to sufficiency of disclosure was unambiguously based on the parties' submissions, the Board cannot recognize any justification for the opponent to have waited 9 months to provide D12 which is a declaration by one of their employees and said new submissions concerning sufficiency of disclosure, which gave only two months for the patent proprietor to react.

In any event, even if they had been triggered by a new point raised by the opposition division, the filing of such new submissions by the opponent within the time limit under Rule 116(1) EPC, but shortly before the oral proceedings, would have required that the proprietor be given an appropriate opportunity to reply thereto, in the present case the opportunity to file a

new auxiliary request, which possibility was refused by the opposition division.

In refusing to grant the appellant the opportunity to file an additional auxiliary request during the oral proceedings, while deciding against the appellant based on new evidence and submissions filed by the respondent only two months before the oral proceedings without any proper justification as to the timing of their filing, the opposition division treated the parties unequally.

Such inequality of treatment constitutes a breach of the right to be heard, amounting to a substantial procedural violation (Case Law of the Boards of Appeal of the EPO, 10th edition 2022, in the following "Case Law", IV.C.6.1).

- 1.3 The appellant did not request a reimbursement of the appeal fee. The Board notes that the condition for a reimbursement are not met in the present case. One condition for reimbursing the appeal fee pursuant to Rule 103(1)(a) EPC is where the appeal is allowable, if the reimbursement is equitable by reason of a substantial procedural violation.

According to the established case law of the boards of appeal reimbursement of the appeal fee requires a causal link between the substantial procedural violation and the necessity to file the appeal (Case Law, *supra*, V.A.11.7.1). In the case at hand the substantial procedural violation did not concern the refusal of the request to maintain the patent as granted, which remains the appellant's main request before the Board. Under these circumstances, the appellant had anyway to lodge an appeal irrespectively of the substantial procedural violation.

Accordingly, in the absence of a causal link between the substantial procedural violation and the filing of the appeal, the reimbursement of the appeal fee would not be equitable.

*Admittance of D15 and D16*

2. The submissions of documents D15 and D16 constitutes an amendment to the appellant's appeal case within the meaning of Article 12(4) RPBA 2020, whose admittance is at the discretion of the Board.

2.1 Documents D15 and D16 relate to the possibility for the skilled person to prepare a propylene composition meeting the parametric definition of granted claim 1, in particular with respect to the inequation involving the melting temperature of the composition, the total comonomer content and the comonomer content of the first polypropylene.

2.2 Under the circumstances addressed in point 1.1 above, the submission of D15 and D16 at the outset of the appeal proceedings constitutes a genuine and timely attempt to counter the reasoning of opposition division based on the new submissions of the opponent filed two months before the oral proceedings. The Board therefore exercises its discretion under Article 12(4) RPBA 2020 in admitting D15 and D16 into the proceedings.

*Main request*

3. In line with the decision under appeal, the respondent submits that the teaching provided in the patent in suit does not allow to meet the inequation defined in granted claim 1 for a propylene ethylene copolymer



having an ethylene content at the lower part of the concentration range defined in said claim 1, which amount can be as low as 0.25 wt%.

- 3.1 While claim 1 does not define embodiments directed to a polypropylene composition having ethylene as comonomer, the patent in suit unambiguously describes it as a preferred embodiment covered by the subject-matter of claim 1 (paragraphs [0017] and [0029] and claim 3).

The appellant acknowledges that the inequation may not be fulfilled in the case of very low content of comonomer, but submits that not fulfilling the inequation would simply mean that only compositions are claimed which fulfil the inequation. In the appellant's opinion, the inequation would put an additional condition concerning the total comonomer content and the comonomer content of the first polypropylene. In the case of ethylene, claim 1 would exclude the use of a total ethylene content which is not high enough to fulfil the inequation. The appellant also submits that *"the determination of the lower limit is catalyst-dependent and is also dependent on the total comonomer content and the comonomer content in the first polypropylene"*.

This, in the Board's opinion, is not convincing and would amount to an interpretation of claim 1 for which there is no basis in the specification. It is unambiguous from the wording of paragraphs [0017] and [0029] that a propylene composition having a total ethylene content as low as 0.25 wt% and fulfilling all other conditions is covered by granted claim 1. There is also no disclosure in the patent in suit that the total ethylene content should be adjusted within the

range of 0.25 to 4.5 wt% in order to meet the inequation set out in claim 1.

3.2 For a total content of ethylene of 0.25 wt%, the comonomer content of the first polypropylene, which is lower than in the second polypropylene, is necessarily at most slightly lower than 0.25 wt%. According to the inequation defined in claim 1 of the patent in suit, it results from the above considerations that  $T_m > 165 - 6.9 \times 0.25 - 8.4 \times 0.25$ , i.e.  $T_m > 161.2$ .

However, considering that:

(i) the comparative example 1 of D1, which is a polypropylene homopolymer produced with a catalyst having dimethylsilyl-bridged bis(indenyl)zirconium dichloride as metallocene component, i.e. the same metallocene component employed in the examples of the patent in suit, has a melting point of 152°C,

(ii) the introduction of ethylene moieties in a polypropylene homopolymer leads according to common general knowledge to a decrease of the melting point of the polymer, which is undisputed, and

(iii) the undisputed preponderant role of the catalyst metallocene component in determining the structure of the polypropylene chains and the resulting melting point of the polypropylene composition obtained,

it is expected that each of the two polypropylene polymers having a different content of ethylene prepared with a catalyst having dimethylsilyl-bridged bis(indenyl)zirconium dichloride as metallocene component, as is the case for the examples of the patent in suit, must have a melting below 152°C. The

same is therefore valid for the mixture of said two polypropylene polymers.

- 3.3 On that basis, as far as the embodiment of the claimed invention described in paragraphs [0017] and [0029] and claim 3 of the patent in suit are concerned, it is not apparent that the synthesis described with the examples of the patent in suit would produce a polypropylene composition meeting the parametric inequation set out in claim 1 when the content of ethylene is in the lower part of the range defined in claim 1.

In any event, the appellant did not submit that a polypropylene having a content of ethylene in the lower part of the range defined in claim 1, but which also meets the inequation, could be produced by using dimethylsilyl-bridged bis(indenyl)zirconium dichloride as metallocene component or by selecting other appropriate measures. A relevant teaching in the patent in suit or relevant common general knowledge in this respect is not apparent to the Board and was not indicated by the appellant.

- 3.4 In view of the foregoing, the subject-matter of granted claim 1 lacks sufficiency of disclosure, as far as embodiments concerning propylene ethylene copolymer having an ethylene content at the lower part of the concentration range defined in granted claim 1 are concerned.
- 3.5 The main request is therefore not allowable.

*Auxiliary requests 1 to 16*

4. According to Article 12(3) RPBA 2020, the statement of grounds of appeal and the reply shall contain a party's

complete appeal case. Accordingly, they shall set out clearly and concisely the reasons why it is requested that the decision under appeal be reversed, amended or upheld, and should specify expressly all the requests, facts, objections, arguments and evidence relied on.

4.1 As noted by the respondent, the appellant did not explain how the amendments contained in auxiliary requests 1 to 16 could overcome the objection that the claimed composition lacks sufficiency of disclosure. In fact, the only auxiliary requests for which submissions have been made with respect to sufficiency of disclosure, albeit in a very limited form, are auxiliary requests 17 to 20 (statement of grounds of appeal, page 3, second full paragraph). This was indicated in the Board's first communication, reference being made to the explanatory remark concerning Article 12(5) RPBA 2020 (Supplementary publication 2, OJ EPO 2020, page 57), according to which *"under proposed new paragraph 5, even if the statement of grounds of appeal or the reply contains a part which is not considered to be an amendment within the meaning of proposed new paragraph 4, the Board can nevertheless decide not to admit, i.e. decide not to take into account in the decision-making process, that part for not meeting the criteria mentioned in proposed new paragraph 3"*. According to this explanatory remark the term "part of a submission" can also include the complete submission, i.e. in the present case, auxiliary requests 1 to 16 for which no submission was provided, even after the Board's communications.

4.2 Under these circumstances, the Board exercises its discretion pursuant to Article 12(5) RPBA not to take into account present auxiliary requests 1 to 16.

*Admittance of auxiliary requests 17 to 20*

5. As indicated by the appellant, auxiliary requests 17 to 20 are limited among others by a total comonomer content ranging from 1.5 to 2.5 wt%. Their filing can be thus seen not only as a fair attempt to counter the reasons for the contested decision in relation to the main request and also to auxiliary request 1 according to which the lower limit for the total comonomer content defined in the latter request was still far remote from the values used in the examples of the patent in suit, but also as a legitimate reaction to the change of opinion of the opposition division triggered by the filing of new evidence and submissions by the respondent two months before the oral proceedings before the opposition division (see point 1, above).

5.1 Whether these requests *prima facie* are suitable to overcome the lack of sufficiency objection in relation to the request of higher ranking, as submitted by the respondent in their letter of 27 November 2023, is in view of their justified and legitimate filing at this stage of the procedure not an appropriate criterion for deciding on their admittance.

5.2 Consequently, the Board exercises its discretion under Article 12(4) RPBA 2020 and admits auxiliary requests 17 to 20 into the appeal proceedings.

*Auxiliary request 17 - sufficiency*

6. As indicated above, the respondent submitted with their written submissions of 27 November 2023 that auxiliary request 17 to 20 were *prima facie* not suitable to "overcome the solve the issues of lack of sufficiency

*of disclosure*". Additional explanations were not given, the sole submissions concerning these auxiliary requests consisting of a vague statement in section 5 of their reply to the statement of grounds of appeal, albeit in the context of their admittance. This statement reads "*they do not appear to overcome the deficiencies under Art 83, the fact that the comonomer content has been limited does not change the fact that the opposed patent does not describe how to obtain the polypropylene composition claimed*". In essence, the respondent submits that the submissions made in relation to the main request equally apply to auxiliary request 17.

- 6.1 Claim 1 of auxiliary request 17 differs from claim 1 of the main request in that (i) the lower and upper limits of the range defining the total comonomer content have been modified to read 1.5 and 2.5 wt%, respectively and (ii) the melt flow index of the polypropylene composition has been limited to the range of 20 to 50 g/10.

The respondent's reasoning indicated in point 3.2 above solely concerns embodiments having a total comonomer content at the lower part of the range defined in claim 1 as granted. It is based on the consideration that under the most favourable condition for meeting the inequation defined in claim 1, i.e. when the comonomer content of the first polypropylene is close to the total comonomer content, the melting point  $T_m$  of the polypropylene composition should be higher than 161.2°C for a total comonomer content of 0.25 wt%. This condition, however, is impossible to meet considering that each of the first and second polypropylene must have a melting point below that of the polypropylene homopolymer, which is of 152°C when using the

metallocene component taught in the patent suit, reference being made by the respondent to example 1 of D1.

The situation is, however, quite different for a minimum total comonomer content of 1.5 wt%, as now defined in claim 1 of auxiliary request 17.

Taking the reasoning proposed by the respondent in relation to the main request, and considering the most favourable condition for meeting the inequation defined in claim 1 of auxiliary request 17, i.e. when the comonomer content of the first polypropylene is close to the total comonomer content of 1.5 wt%, one comes to the conclusion that one should be able to prepare a polypropylene composition whose  $T_m$  is higher than  $165 - 6.9 \times 1.5 - 8.4 \times 1.5$ , i.e. higher than  $142.0^\circ\text{C}$ . This value is well below the melting point of a polypropylene homopolymer obtained with the metallocene component used in the patent in suit. On that basis, it cannot be concluded that the incompatibility between the inequation of claim 1 and the lower values of the total comonomer content of the polypropylene composition defined for the main request also exists in relation to auxiliary request 17. Arguments of the respondent in this respect were not provided.

- 6.2 The respondent also submitted in relation to the main request that the description of the patent in suit would give with paragraphs [0049]-[0070] only vague indications on how to obtain the claimed polypropylene composition, which in the respondent's view has to fulfil not less than five parameters. The respondent's objection is based on the argument that in the absence of more specific instructions, the skilled person would need to look at the examples in order to have a

starting point to carry out the invention within its full breadth, which examples, in the respondent's opinion, cannot be repeated by the skilled person.

The Board acknowledges that an exact repetition of the examples of the patent in suit might be for the skilled person a more challenging task than merely obtaining compositions falling within the ambit of claim 1, as it would require to obtain at least specific values for the parameters addressed in claim 1 of auxiliary request 17.

However, the difficulty to provide an exact repetition of the examples of the patent in suit is as such not decisive, since the question of sufficiency of disclosure relates to the invention which corresponds, in accordance with Rule 43(1) EPC, to the specific combination of features in the claim, as was reminded in Opinion G 2/98 of the Enlarged Board of Appeal (point 2 of the Reasons), i.e. in the present case claim 1 of auxiliary request 17 which is objected to by the respondent.

Moreover, according to Rule 42(1)(e) EPC the description shall describe in detail at least one way of carrying out the invention claimed, using examples where appropriate, meaning that the presence of examples is not a mandatory requirement for meeting the requirement of sufficiency of disclosure. What counts is whether the information provided by the whole patent, including that provided by the examples, if any, and the common general knowledge allows a skilled person to put into practice with reasonable effort the subject-matter claimed, in the present case to prepare polypropylene compositions defined by the terms of claim 1 of auxiliary request 17.



Declaration D12 does not address the possibility to produce a polymer composition defined by the terms of operative claim 1 on the basis of the instructions given in the specification and the common general knowledge. It only addresses the exact repetition of the inventive examples. Accordingly, D12 cannot demonstrate that the invention as defined in claim 1 of auxiliary request 17 cannot be carried out by a person skilled in the art.

6.3 Example 5 of the patent in suit does not concern a composition described to meet the condition set out in granted claim 1, as the difference between the melting temperature and the crystallization temperature of the polypropylene composition is 34, which is outside of the range from 27 to 33 specified in claim 1. The respondent submitted in relation to the main request that example 5 would make it clear that the polymerization conditions are important to obtain the claimed polymers. Since these polymerisation conditions are not specified in the examples of the patent in suit, the Board does not see how the skilled person wishing to produce a polypropylene in accordance with granted claim 1 could be mistaken by the technical information contained in example 5 of the patent in suit. On that basis, the information provided with example 5 of the patent in suit does not demonstrate the impossibility for the skilled person to carry out the invention as defined in claim 1. For the sake of completeness, the Board takes also note of the declaration D15 made by one of the inventors of the patent in suit, according to which the melt temperature of the polypropylene prepared for example 5 was 145.2°C and had been erroneously reported as 146°C instead of 145°C.

6.4 While it might be a difficult task to exactly repeat the examples of the patent in suit, their information content is nevertheless relevant for carrying out the invention defined by the terms of operative claim 1.

In line with the information given in paragraph [0054] of the specification, the experimental part of the specification teaches the use of a dimethylsilyl-bridged bis(indenyl)zirconium dichloride as metallocene component for preparing both the first and second polypropylene components (paragraph [0088]).

It also teaches in the same paragraph that the comonomer content in each polypropylene random copolymer varies and is determined such as to increase the absolute difference between the comonomer content of the first polypropylene random copolymer and the comonomer content of the second polypropylene random copolymer.

As pointed out by the appellant, reference being made to examples 3 and 5, the experimental part teaches in paragraph [0093] that  $T_m$  and  $T_c$  are increased by increasing the split in ethylene distribution.

The Board has no doubt that the monomer ratios and the reaction conditions can be adjusted so as to obtain the targeted concentration of comonomer in each copolymer and that the desired melt flow index can be obtained by adjusting the hydrogen content in each reactor. This is common general knowledge.

It is also common general knowledge that metallocene catalysts result in polypropylene polymers with a low content of xylene solubles, as pointed out in D15 (page

2, penultimate paragraph) and confirmed in D16 (page 314, first paragraph).

6.5 Apart from the ability for the skilled person to prepare a polypropylene composition fulfilling the inequation defined in granted claim 1 for a low content of comonomer, which question is addressed above in relation to the main request, the respondent did not explain why taking into account the information provided in the patent in suit and the common general knowledge referred to by appellant the skilled person could not perform the invention in accordance with the more limited scope defined in claim 1 of auxiliary request 17.

On that basis, there was no apparent reason for the Board to conclude in view of the respondent's submissions in their rejoinder that the subject-matter of claim 1 of the granted patent was insufficiently disclosed as far as polypropylene compositions which do not have a low content of total comonomer are concerned. This was stated in the Board's first communication (points 11 to 14). The respondent did not provide additional arguments in reply to the Board's preliminary opinion, even after the Board had explicitly indicated in its second communication that the same conclusion applied to the composition of auxiliary request 17.

According to the case law of the Boards of Appeal, an objection of insufficient disclosure presupposes that there are serious doubts, substantiated by verifiable facts, and the burden of proof is primarily on the opponent, here the respondent (Case Law, *supra*, II.C. 9). While serious doubts had been substantiated in relation to embodiments directed to a low total

comonomer content of the polypropylene composition, because the parametric condition defined by the inequation could not be met for those embodiments, the respondent failed to demonstrate that such serious doubts existed also in relation to present claim 1.

- 6.6 In view of the above, the subject-matter of claim 1 of auxiliary request 17 is considered to meet the requirements of sufficiency of disclosure.

*Remittal*

7. The remaining grounds for opposition of lack of novelty and inventive step were not decided upon by the opposition division, let alone debated at the oral proceedings. Furthermore both parties have requested remittal if sufficiency of disclosure is acknowledged by the Board. This is seen by the Board to constitute "special reasons" within the meaning of Article 11 RPBA 2020 to remit the case for further prosecution to the department whose decision was appealed.

Accordingly, exercising its discretion under Article 111(1), second sentence, EPC, the Board decides to remit the case to the opposition division for further prosecution.

## 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 for further prosecution.

The Registrar:

The Chairman:



A. Pinna

D. Semino

Decision electronically authenticated