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**Datasheet for the decision
of 12 March 2008**

Case Number: T 1029/05 - 3.3.03

Application Number: 95939025.3

Publication Number: 0792297

IPC: C08F 10/00

Language of the proceedings: EN

Title of invention:

Supported catalyst component, supported catalyst, their preparation, and addition polymerization process.

Patentee:

DOW GLOBAL TECHNOLOGIES INC.

Opponent:

Basell Polyolefine GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 106, 107, 108, 114(2)
EPC R. 3, 99(1), 99(2), 101(1)

Relevant legal provisions (EPC 1973):

-

Keyword:

"Admissibility of appeal (yes)"
"Late-filed document - admitted"
"Novelty (yes)"

Decisions cited:

T 0117/86, T 0145/88, T 0611/90, T 0793/93, T 0708/95,
T 1082/05

Catchword:

-



Case Number: T 1029/05 - 3.3.03

D E C I S I O N
of the Technical Board of Appeal 3.3.03
of 12 March 2008

Appellant: Basell Polyolefine GmbH
(Opponent) Industriepark Höchst -E 413
Intellectual Property
D-65926 Frankfurt (DE)

Representative: -

Respondent: DOW GLOBAL TECHNOLOGIES INC.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office dated 1 June 2005 and
posted 10 June 2006 rejecting the opposition
filed against European patent No. 0792297
pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: R. Young
Members: C. Idez
C. Brandt

Summary of Facts and Submissions

I. The grant of the European patent No. 0 792 297 in the name of The Dow Chemical Company (later Dow Global Technologies, Inc.) in respect of European patent application No. 95 939 025.3 filed on 2 November 1995 and claiming priority of US patent application No. 340989 filed on 17 November 1994 was announced on 18 December 2002 (Bulletin 2002/51) on the basis of 30 Claims.

Independent Claims 1, 8, 13, 22 and 29 read as follows:

"1. A supported catalyst component comprising a support material and an alumoxane, which component contains 15 to 40 weight percent of aluminum, based on the total weight of the support material and alumoxane, and wherein not more than 10 percent aluminum present in the supported catalyst component is extractable in a one-hour extraction with toluene of 90°C using 10 mL toluene per gram of supported catalyst component, said supported catalyst component being obtainable by

A. heating a support material containing alumoxane in free-flowing or powder form at a reduced pressure or under an inert atmosphere for a period and at a temperature sufficient to fix alumoxane to the supported material.

8. A supported catalyst comprising:
a supported catalyst component according to any of the claims 1 to 7; and
a transition metal compound, which transition metal compound is contacted with the supported catalyst

component in a diluent under such conditions that the transition metal compound is soluble.

13. A process for preparing a supported catalyst component comprising:

A. heating a support material containing alumoxane in free-flowing or powder form at a reduced pressure or under an inert atmosphere for a period and at a temperature sufficient to fix alumoxane to the supported material;

thereby selecting the conditions in heating step A so as to form a supported catalyst component, which component contains 15 to 40 weight percent of aluminum, based on the total weight of the support material and alumoxane, and wherein not more than 10 percent aluminum present in the supported catalyst component is extractable in a one-hour extraction with toluene of 90°C using 10 mL toluene per gram of supported catalyst component.

22. A process for preparing a supported catalyst comprising:

preparing a supported catalyst component according to any of the claims 13 to 21; and

adding before or after heating step A or optional washing step B, a transition metal compound in a diluent under such conditions that said transition metal compound is soluble, with the proviso that once the transition metal compound has been added, the product thus obtained is not subjected to temperatures equal to or higher than the decomposition temperature of the transition metal compound.

29. An addition polymerization process wherein one or more addition polymerizable monomers are contacted with a supported catalyst according to any of the claims 8 to 12 or obtainable according to any of the claims 22 to 28 under addition polymerization conditions."

II. On 18 September 2003, a Notice of Opposition against the patent was filed by Basell Polyolefine GmbH.

The Opponent requested revocation of the patent in its entirety on the grounds of lack of novelty and lack of inventive step (Article 100(a) EPC).

The opposition was supported by the following documents:

D1: EP-A-0 516 458,

D2: EP-A-0 515 132; as well as the later filed, but admitted, document

D3: EP-A-0 545 152.

III. By a decision announced orally on 1 June 2005 and issued in writing on 10 June 2005, the Opposition Division rejected the opposition.

In its decision the Opposition Division considered that the repetition of comparative Example 7 of D1 and of Example K1 of D3 carried out by the Opponent were not true repetitions of these examples, so that they could not prove lack of novelty of the subject-matter of the granted claims.

The Opposition Division came to the conclusion that the claimed subject-matter was novel over D1 to D3. The claimed subject-matter was also considered as inventive over the teachings of D1 to D3.

IV. Notice of Appeal was filed on 10 August 2005 by the Opponent with simultaneous payment of the prescribed fee.

V. With its Statement of Grounds of Appeal filed on 18 October 2005, the Appellant submitted the following document:

D4: EP-A-0 650 967.

It also argued essentially as follows:

- (i) The Opposition Division had applied very strict criteria when considering the validity of the repetitions of Comparative 7 of D1 and of Example K1 of D3.
- (ii) Hence, according to the Opposition Division these repetitions could not be used as proof for lack of novelty.
- (iii) Having regard to the very strict criteria applied by the Opposition Division, the Appellant referred to document D4 cited during the examination procedure, and in particular to Example 1 thereof.
- (iv) During the examination procedure the Applicant (now Patent Proprietor) had submitted a repetition of Example 1 of D4 in response to an objection of lack of novelty raised by the Examining Division in order to show that this example was not novelty destroying.

- (v) In view of the very strict criteria applied by the Opposition Division in its decision, it was however clear that this repetition of Example 1 by the Applicant could not be considered as a true repetition of Example 1 of D4 and that it could not be used as proof for establishing novelty of the claimed subject-matter over that example.

- (vi) Consequently, one had to conclude that the subject-matter of granted Claim 1 was not novel over Example 1 of D4, which disclosed a supported catalyst component containing 24.5% by weight of aluminum and showing complete immobilization of the aluminum compound.

VI. In its letter dated 2 March 2006, the Respondent (Patent Proprietor) argued essentially as follows:

(i) Concerning the admissibility of the appeal by the Opponent:

(i.1) Document D4 had been already discussed before the Examining Division in the procedure up to grant.

(i.2) The Appellant seemed to argue that the Examining Division should not have accepted the data presented by Applicant as argument that the claims were not anticipated by D4.

(i.3) According to the Rules of Procedure of the Boards of Appeal, the statement of grounds should contain a party's complete case. Reference was also made to the Board's power to hold inadmissible facts, evidence or

requests which could have been presented in the first-instance proceedings.

(i.4) Document D4 could however have been introduced in the opposition proceedings.

(i.5) It would appear that the Appellant was contesting a decision of an Examining Division. Furthermore, it had not provided any evidence from which it would appear that D4 would directly and unambiguously teach subject-matter claimed in the claims as granted.

(i.6) Furthermore, the strict standard applied by the Opposition Division for experimental evidence in order to form a basis for a novelty objection was entirely in line with the Case Law of the boards of appeal on this subject.

(i.7) Although the Appellant had noted that the Opposition Division had applied a very strict standard in that respect, it had not contested the correctness of the decision, nor had presented any facts, evidence and arguments that the decision would not be correct.

(i.8) Thus, the appeal should be held inadmissible, because it is only based on inadmissible facts, evidence and/or requests.

(ii) Concerning novelty:

(ii.1) According to the Appellant D4 was considered novelty destroying by the Examining Division, but the Applicant (Patent Proprietor) had succeeded in

overcoming the novelty objection on the basis of a test report.

(ii.2) According to the Appellant, this test report was not in line with the very strict standards required from the Appellant by the Opposition Division.

(ii.3) The working examples of D4 could not be repeated one-on-one, inter alia because the silica support material and the trimethyl aluminium were insufficiently defined.

(ii.4) The toluene extraction in D4 was not the same as the toluene extraction according to the claims of the patent in suit, because the amount of toluene in Example 1 of D4 was not identified. Furthermore, the preparation process of Example 1 of D4 was entirely different from the process of Claim 13 as granted.

(ii.5) In opposition proceedings, it was up to the opponent to show that a certain piece of prior art took away the novelty of a particular claim. The Appellant had not provided evidence that the embodiments of the working examples directly and unambiguously taught embodiments which would anticipate the claims.

(ii.6) In the absence of any evidence that working Example 1 of D4 would take away the novelty of Claim 1 as granted, the conclusion had to be the claims as granted were novel.

VII. The Appellant requested that the decision under appeal be set aside and the patent be revoked.

The Respondent requested:
as main request that the appeal be held inadmissible,
or
as Auxiliary Request I, that the appeal be dismissed
and the patent be maintained in the form as granted, or
as further Auxiliary Requests II to V, that the patent
be maintained on the requested on the basis of one of
the Requests I-IV as attached to the Decision of the
Opposition Division dated June 10, 2005.

Reasons for the decision

1. *Admissibility of the appeal*
 - 1.1 As indicated above in Section VI, the Patent Proprietor requested that the appeal filed by the Opponent be ruled inadmissible.
 - 1.2 The Board firstly observes that the notice of appeal of the Opponent was filed and the appeal fee was paid within the time period set out in Article 108 EPC, first and second sentences. The appeal also complies with Articles 106 and 107 and with Rule 3, paragraph 1, and Rule 99(1) EPC.
 - 1.3 Consequently, it remains to be decided whether the Statement of Grounds of Appeal which was filed within four months after the date of the notification of the decision was sufficient to set out grounds of appeal in accordance with Article 108, third sentence, EPC or whether the appeal has to be rejected as inadmissible under Rule 101(1) EPC.

- 1.4 In that respect, while Article 108 EPC requires that a written statement setting out the grounds for appeal must be filed within four months after the date of the notification of the decision, it does not, however, specify on which evidence these grounds are to be based.
- 1.5 Thus, the mere fact that the appeal filed by the Opponent was only based on evidence (i.e. document D4), submitted for the first time with the Statement of Grounds of Appeal cannot as such render the appeal inadmissible (cf. also T 1082/05 of 26 September October 2007, not published in OJ EPO, point 1 of the reasons).
- 1.6 Nevertheless, according to the established case law of the Boards of Appeal (cf. T 145/88, OJ 1991, 251), the grounds of appeal have to specify the legal and factual reasons why the contested decision should be set aside and the appeal allowed (Article 108, third sentence; Rule 99(2) EPC).
- 1.7 In this connection, the Board firstly notes that in its Statement of Grounds of Appeal, the Opponent has specifically referred to the paragraphs 4.1 to 5.2 of the decision of the Opposition Division, according to which the repetition of the Comparative Example 7 of D1 and the repetition of Example K1 of D3 carried out by the Opponent could not be considered as true repetition of these examples and consequently could not be used as evidence for the alleged lack of novelty.
- 1.8 Although having underlined that the Opposition Division had applied, in its view, very strict criteria when checking the validity of the repetition of these

examples, the Opponent has not criticized the decision rendered by the Opposition Division in respect of the objection of lack of novelty in view of Comparative Example 7 of D1 and Example K1 of D3, but it has rather relied on a new document i.e. document D4 (Example 1 thereof) in order to support its objection of lack of novelty against the subject-matter of granted Claim 1.

- 1.9 Although the usual manner of challenging decisions of the first instance is to take issue with the grounds upon which they are based, normally by giving legal and/or factual reasons seeking to demonstrate the unsoundness or invalidity of those grounds and, consequently of the decision to which they gave rise, it cannot be denied that the fresh reasons presented by the Opponent in its Statement of Grounds of Appeal are still within the opposition grounds raised initially, i.e. lack of novelty.
- 1.10 According to the case law of the boards of appeal, (cf. T 611/90 (OJ EPO 1993, 050, Reasons point 2; T 708/95, of 16 December 1996 (not published in OJ EPO; Reasons point 1) the admissibility of an appeal is not to be denied because the Appellant has not taken issue with the reasons upon which the decision of the Opposition Division is based but has presented a fresh case to the Board by submitting arguments based on new documents - provided the new arguments and evidence concern a ground of opposition which corresponds to one of the grounds on which the opposition had been filed.
- 1.11 Consequently, since the Statement of Grounds of Appeal of the Opponent is based on one of the opposition grounds raised initially and since the other

requirements for admissibility of the appeal are satisfied (cf. point 1.1 above), the Board comes to the conclusion that the appeal is admissible.

2. *Admissibility of document D4 submitted by the Appellant with its Statement of Grounds of Appeal into the proceedings.*

2.1 As stated in decision T 117/86 (OJ EPO 1989, 401) facts and evidence in support of an opposition which are presented after the nine-month period has expired are out of time and late, and may or may not be admitted into the proceedings as a matter of discretion under Article 114(2) EPC.

2.2 Since the grant of the European Patent EP 0 792 297 was announced on 18 December 2002, and since document D4 was submitted by the Appellant with the Statement of Grounds of Appeal, i.e. on 18 October 2005, it thus follows that document D4 must be regarded as late filed.

2.3 Although it is the established case law of the boards of appeal, that the main criterion for deciding on the admissibility of a late-filed document is its relevance, further considerations which can play a decisive role in the question of admittance of late filed evidence are the degree of lateness and whether the late filing can be seen as representing an abuse of the proceedings (cf. T 1019/92 of 9 June 1994; not published in OJ EPO, Reasons, point 2.2).

2.4 In that respect, the Board observes that the Respondent has submitted that D4 could have been presented in the first-instance proceedings.

2.5 Consequently, the issue of admissibility of document D4 into the proceedings, hence, boils down to the following questions:

(i) as to whether the late filing of document D4 is to be seen as representing an abuse of proceedings,

and, if question (i) is negatively answered,

(ii) as to whether the relevance of document D4 is *prima facie* such to justify its introduction into the proceedings.

2.5.1 In this connection, it is evident, in the Board's view, that the main argument of the Appellant for justifying the late filing of document D4 is based on the different standard applied, in the Appellant's view, by the Opposition Division and the Examining Division, respectively, when assessing the probative value of repetitions of examples of prior art documents D1 and D3, on the one hand, and D4 on the other hand.

2.5.2 Since the Examining Division after having taken into account the repetition of Example 1 of document D4, had acknowledged novelty of the claimed subject-matter in view of that example, it is, in the Board's view, not unthinkable that the Appellant could have expected that the same standard would be applied by the Opposition Division when assessing the novelty of the subject-matter of granted Claim 1, so that there was no reason to submit document D4 during the opposition proceedings in addition to the repetitions of Comparative Example 7 of D1 and of Example K1 of D3.

- 2.5.3 Furthermore, there is, in the Board's view, no suggestion, even if document D4 has been cited in the course of the examination procedure, that there was a deliberate decision of the Appellant for tactical reasons not to cite document D4 during the opposition procedure (cf. T 1019/92; Catchword II).
- 2.5.4 It thus follows that the filing of the document D4 with its Statements of Grounds of Appeal cannot represent an abuse of proceedings.
- 2.5.5 Consequently, question (i) above must be answered negatively. It remains to be decided whether a positive answer can be given to question (ii).
- 2.5.6 As can be deduced from the communication of the Examining Division dated 4 April 2000, document D4 (corresponding to document D2 in that communication) has been considered as potentially challenging the novelty of the subject-matter of the claims then on file, i.e. Claims 1 to 30 filed with letter dated 26 November 1998 of the Applicant.
- 2.5.7 Since granted Claim 1 corresponds to Claim 1 then on file, the Board can only come to the conclusion that document D4 is *prima facie* relevant for the issue of novelty of the subject-matter of granted Claim 1.
- 2.6 Thus, the Board, taking further into consideration that document D4 has been submitted at the very beginning of the appeal proceedings, sees no reason not to introduce it into the proceedings.

Main request (claims as granted)

3. *Novelty*

3.1 Lack of novelty of the subject-matter of Claim 1 has been alleged by the Appellant in view of Example 1 of D4.

3.2 Example 1 of D4 discloses a supported catalyst component being in form a free flowing powder and comprising a support material and an alumoxane.

3.3 According to Example 1 of D4, a dispersion prepared with the aid of the jet loop reactor from 2.92 kg of trimethyl aluminum (TMA) (aluminum content: 36.8%), 0.58 kg of water and 21.5 kg of toluene (molar ratio $H_2O/TMA = 0.8$) was mixed by stirring with 2.0 kg of silica support material (surface area (N_2 according to BET): $316 \text{ m}^2/\text{g}$; N_2 -pore volume: 1.55 ml/g ; particle size distribution: $20\text{-}80 \text{ }\mu\text{m}$; residual water content: 2.6%) in a 40 l steel reactor and evaporated to dryness under vacuum at room temperature. According to Example 1, 4.3 kg of supported methyl alumoxane (MAO) were obtained in the form of a free-flowing powder (aluminum content: $24.5\% = 98\%$ of theory based on aluminum used; ratio methyl/aluminum: 1.2). As indicated in Example 1, extraction with toluene at 90°C for 3 hours and subsequent analysis of the toluene phase showed that complete immobilization of the alumoxane on the support had been achieved.

3.4 In this connection, the Board notes that granted Claim 1 requires, explicitly, that the claimed supported catalyst component

- (i) comprises a support material and an alumoxane,
- (ii) that it contains 15 to 40 weight percent of aluminum, based on the total weight of the support material and alumoxane,
- (iii) that not more than 10 percent aluminum present in the supported catalyst component is extractable in a one-hour extraction with toluene of 90°C using 10 mL toluene per gram of supported catalyst component, and
- (iv) that it is obtainable by heating a support material containing alumoxane in free-flowing or powder form at a reduced pressure or under an inert atmosphere for a period and at a temperature sufficient to fix alumoxane to the supported material.

3.5 Independently of the question, in view of paragraph [0071] of the patent in suit, as to whether the process for manufacturing the supported catalyst component disclosed in Example 1 of D4 corresponds to process feature (iv) above, it is established case law of the boards of appeal, that process features can only contribute to the novelty of a product claim insofar as they give rise to a distinct and identifiable characteristic of the product.

3.6 In the absence of any evidence that the claimed supported catalyst component exhibits any "fingerprint" of the process step corresponding to feature (iv) used for its manufacture, the claimed supported catalyst

component must be regarded as being characterized only by features (i), (ii) and (iii) above.

- 3.7 In that context, while it is immediately evident that Example 1 of D4 discloses features (i) and (ii) mentioned above in paragraph 3.4, the Board observes that it does not explicitly disclose feature (iii) of the claimed supported catalyst component.
- 3.8 Thus, the question of novelty of the subject-matter of Claim 1 boils down to the question as to whether D4 inherently discloses feature (iii) as set out above.
- 3.9 According to decision T 793/93 of 27 September 1995 (not published in OJ EPO), "concerning the issue of novelty, Article 54(2) EPC defines a state of the art as comprising "everything made available to the public by means of written or oral description, by use or in any other way. The term "available" clearly goes beyond literal or diagrammatical description, and implies a communication, express or implicit, of technical information by other means as well. In the case where a prior art document fails explicitly to disclose something falling within a claim, availability in the sense of Article 54 may still be established if the inevitable outcome of what is literally or explicitly disclosed falls within the ambit of that claim" (Reasons 2.1). As further stated in decision T 793/93 "in deciding what is or is not the inevitable outcome of an express literal disclosure in a particular prior art document, a standard of proof much stricter than the balance of probability, to wit "beyond all reasonable doubt", needs to be applied. It follows that if any reasonable doubt exists as to what might or

might not be the result of carrying out the literal disclosure and instructions of a prior art document, in other words if there remains a "grey area", then the case on anticipation based on such a document must fail" (Reasons 2.1).

3.10 It follows from these considerations that Example 1 of D4 could only be considered as novelty destroying for the subject-matter of Claim 1 provided it could be established beyond any reasonable doubt that not more than 10 percent aluminum present in the supported catalyst component according to that Example 1 is extractable in a one-hour extraction with toluene of 90°C using 10 mL toluene per gram of supported catalyst component.

3.11 In that respect, while it is true, as submitted by the Appellant, that, according to Example 1 of D4, a 3 hour extraction in toluene at 90°C shows that a complete immobilization of the alumoxane was achieved, i.e. in other words that no aluminum was detected in the toluene, this does not however imply, in the absence of indication in Example 1 of D4 of the ratio of toluene per gram of supported catalyst component for carrying out the toluene extraction, that the supported catalyst component according to that example inevitably fulfils the requirements set in granted Claim 1 in terms of toluene extractability (i.e. feature (iii)).

3.12 Nor has the Appellant, who, according to established case law, had the burden of proof, provided any data e.g. reworking of Example 1 of D4, which would have demonstrated that the supported catalyst component according to Example 1 of D4 indeed fulfils the

requirements in terms of toluene extractability set out in granted Claim 1.

3.13 In that respect, the Board observes that the Appellant has merely argued that the reworking of Example 1 of D4 submitted by the Patent Proprietor during the examination procedure was not a true repetition of that example and, hence, could not show that the claimed subject-matter was novel over Example 1 of D4.

3.14 Nevertheless, even if the reworking of Example 1 of D4 by the then Applicant (now Patent Proprietor and Respondent) during the examination proceedings would not be considered as a true repetition of that example, this could not, on the one hand, reciprocally demonstrate that the subject-matter of Claim 1 is not novel over Example 1 of D4 and this would not, on the other hand, shift the burden of the proof to the Patent Proprietor in that respect in the opposition proceedings.

3.15 Thus, the Board can only come to the conclusion that the Appellant has failed to discharge the burden of proof of showing beyond reasonable doubt that the supported catalyst component according to Example 1 of D4 meets the requirements in terms of toluene extractability set out in granted Claim 1.

3.16 Consequently, in accordance with the principles set out in T 793/93, the objection of lack of novelty of Claim 1 in view of Examples 1 of D4 must fail.

4. Since this novelty objection was the only ground raised by the Appellant in order to contest the validity of the decision under appeal, it further follows from the above that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

E. Görgmaier

R. Young