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**Datasheet for the decision  
of 31 January 2008**

**Case Number:** T 0464/06 - 3.3.03

**Application Number:** 98914145.2

**Publication Number:** 0975696

**IPC:** C08L 23/10

**Language of the proceedings:** EN

**Title of invention:**  
Foamable polymeric composition

**Patentee:**  
DSM IP Assets B.V.

**Opponent:**  
Mitsui Chemicals, Inc.

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54, 113(2)

**Keyword:**  
"Basis of decisions - claims constituting main request - text not identified"  
"Second Auxiliary Request - novelty - implicit disclosure - no"

**Decisions cited:**  
G 0001/92, T 0793/93

**Catchword:**  
-



Case Number: T 0464/06 - 3.3.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.03  
of 31 January 2008

**Appellant:** DSM IP Assets B.V.  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office dated 18 January 2006  
and posted 3 February 2006 revoking European  
patent No. 0975696 pursuant to Article 102(1)  
EPC.

**Composition of the Board:**

**Chairman:** R. Young  
**Members:** M. Gordon  
H. Preglau

## Summary of Facts and Submissions

I. Mention of the grant of European Patent No. 0 975 696 in the name of DSM N.V., later DSM IP Assets B.V., in respect of European patent application No. 98914145.2, filed on 10 April 1998 as international application No. PCT/NL98/00209, published as WO-A-98/46676 on 22 October 1998, and claiming priority of US 60/043331 dated 15 April 1997 and EP 97201186, dated 23 April 1997, was announced on 25 June 2003 (Bulletin 2003/26) on the basis of 16 claims, independent claims 1, 14, 15 and 16 of which read as follows:

"1. Foamable polymeric composition, comprising a thermoplastic elastomer on the basis of a polyolefin and a rubber, wherein the polyolefin is a polypropylene homo- or copolymer having:

- a weight average molecular weight,  $M_w$  (determined using gel permeation chromatography (GPC) at a temperature of 145°C), of at least  $2 \cdot 10^5$ , and
- an elongational viscosity (measured at a temperature of 170°C, at a rate of elongation of  $0.03 \text{ s}^{-1}$  and at a time of 10 s),  $EV(170/10)$ , of at least  $1.4 \cdot 10^4 \text{ Pa.s.}$ "

"14. Process for preparing a foamed polymeric article, comprising the following steps:

- a) heating a mixture of a thermoplastic elastomer on the basis of a polyolefin and a rubber, and a blowing agent, to a temperature above the melting point of the thermoplastic elastomer, and
- b) releasing the resulting mixture to a pressure having a value of about 0,1 MPa,

wherein the thermoplastic elastomer is a foamable polymeric composition according to claim 13."

"15. Process for preparing a foamed polymeric article, comprising the following steps:

a) heating a thermoplastic elastomer on the basis of a polyolefin and a rubber to a temperature above the melting point of the thermoplastic elastomer;

b) adding a physical or chemical blowing agent and preparing a intimate mixture of the thermoplastic elastomer and the blowing agent, and

c) releasing the resulting mixture to a pressure having a value of about 0,1 MPa,

wherein the thermoplastic elastomer is a foamable polymeric composition according to anyone of claims 1-12."

"16. Foamed polymeric article, comprising a foamable polymeric composition according to anyone of claims 1-12."

Dependent claims 2-13 were directed to preferred embodiments of the foamable polymeric composition of claim 1.

II. A notice of opposition to the patent was filed on 25 March 2004 by Mitsui Chemicals Inc. The grounds of opposition pursuant to Art. 100(a) EPC were invoked.

The following documents, *inter alia*, were cited in support of the opposition:

D1: EP-A-794 226

D2: EP-A-775 727

D3: JP-A-8-81590 and D3a, an English language translation of D3.

D1 and D2 were comprised in the state of the art pursuant to Art. 54(3) EPC.

Together with the notice of opposition the opponent submitted the results of measurements of the following properties, as defined in the claims of the patent in suit and performed according to the methods indicated in the patent in suit:  $M_w$ ,  $M_n$ , elongational viscosity (measured at a temperature of 170°C, at a rate of elongation of 0.03 s<sup>-1</sup> and at a time of 10s), EV(170/10), hereinafter referred to as "EV", storage modulus, complex viscosity and apparent shear viscosity of polypropylenes disclosed in D1 and D3 ("PF-814") and D2 ("PP-20(B)"), it being submitted that the properties anticipated those specified in granted claim 1.

With a further submission dated 18 November 2005 the opponent submitted that an error had been made in the determination of the  $M_w$  and  $M_n$  for both "PF-814" and "PP-20(B)" in that an incorrect standard had been applied. Amended data were submitted.

III. In a decision announced on 18 January 2006 and issued in writing on 3 February 2006 the opposition division revoked the patent.

The decision was based on the claims as granted (main request) and a set of 15 claims designated "second auxiliary request", filed with letter of 16 January 2006. A set of claims designated "first auxiliary request" was withdrawn during the oral proceedings before the opposition division.

Claim 1 of the second auxiliary request read as follows, deletions compared to the main request being indicated by ~~striketrough~~ and additions by **bold**:

"1. Foamable polymeric composition, comprising a thermoplastic elastomer on the basis of a polyolefin and a rubber, wherein the polyolefin is a polypropylene homo- or copolymer having:

- a weight average molecular weight,  $M_w$  (determined using gel permeation chromatography (GPC) at a temperature of 145°C), of at least  $2 \cdot 10^5$ , and
- an elongational viscosity (measured at a temperature of 170°C, at a rate of elongation of  $0.03 \text{ s}^{-1}$  and at a time of 10 s),  $EV(170/10)$ , of at least  $1.4 \cdot 10^4 \text{ Pa.s}$  **and**
- **a storage modulus (measured at 1 rad/s and at a temperature of 170°C),  $G'(170)$ , of at least 6 kPa.**
- **and wherein the amount of rubber is in the range of 25-85 wt % based on the weight of the polypropylene and the rubber."**

According to the decision, the subject matter of the claims of the main request was anticipated by the disclosures of D1-D3, as shown by the data submitted by the opponent concerning the properties of "PF-814" and "PP-20(B)" (see section II above). By the same token, it was held that the further features of the second auxiliary request did not establish a distinction with respect to the disclosure of D2.

In particular D2 disclosed an olefin thermoplastic elastomer composition comprising a partially crosslinked thermoplastic elastomer, which fell within the scope of claim 1, since the polypropylene "PP-20(B)" used in the examples fulfilled, according to the measurements supplied in the data filed with the letter dated 18 November 2005, the requirements of  $M_w$ ,

elongational viscosity and storage modulus specified by the claims.

Accordingly the subject matter of the claims of the main and second auxiliary requests was held to lack novelty (Art. 54 EPC) with the consequence that the patent was revoked.

IV. A notice of appeal against this decision was filed on 30 March 2006 by the patentee, the requisite fee being paid on the same day.

V. The statement of grounds of appeal was received on 13 June 2006.

(a) The following requests were made:

"1. Patentee requests to set the Decision of the Opposition Division aside and to maintain the claims as granted.

2. As a further request a first auxiliary request is filed.

3. The patentee further requests to consider the relevance of the measurements filed by opponent in November 18 2005.

4. Oral proceedings are requested."

(b) The statement of grounds of appeal was accompanied by two sets of claims, one of which was entitled "Main Request" and the other entitled "First Auxiliary Request".

Claim 1 of the set of claims designated "Main request" differed from claim 1 as granted in that in the 6th line of the claim the term "an elongation viscosity" was employed (cf. second auxiliary request considered by the opposition division reported in section III above).

The wording of the set of claims submitted

together with the statement of grounds of appeal as the first auxiliary request is not relevant for this decision.

- (c) With regard to the issue of lack of novelty the appellant submitted that, whilst it had been prepared to accept the measurement data concerning the relevant properties of the polypropylenes "PF-814" and "PP-20(B)" filed together with the notice of opposition, it had reconsidered this position upon being confronted with the amended data filed with the letter dated 18 November 2005. It had however not been possible to reproduce the measurements of the opponent in the short period remaining between receipt of the amended data and the oral proceedings.

On checking the relevant measurements for the polypropylenes, however, it had been recognised that the "PP1" material of comparative example A of the patent in suit was in fact "PF-814". The values for  $M_w$  and EV for this material determined by the opponent diverged significantly from those disclosed in the patent in suit (Table 1 comparative example A). It was submitted furthermore, that there was no reason to assume that such divergences would only be observed with "PF-814". Consequently the measurements of the opponent could no longer be regarded as satisfying the requirement of "beyond all reasonable doubt" in respect of the properties of either of the two polypropylenes, and in particular failed to establish "beyond all doubt" that "PP-20(B)" was novelty destroying for the subject matter of the patent in suit.

Furthermore it was concluded that "PP-20(B)" was



not so easily available as alleged by the opponent, and it was requested that the opponent give all information necessary to obtain this material.

VI. In responses dated 12 April 2006 and 2 January 2007 the opponent, now the respondent requested that the appeal be dismissed.

With respect to D2 it was submitted in the letter dated 2 January 2007 that "PP-20(B)" did fulfil the requirements of pending claim 1. In support of this the respondent determined a number of properties of various polypropylene materials as well as of "PP-20(B)" and compared these to the subject matter of the operative claims.

The data was summarised in a table, which is reproduced below:

Property	Claimed	PP-20	SunAllomer PS201A	Novatec EA9	Mitsui I	Mitsui II
MFR [10g/min]	-	0.3	0.5	0.6	1.44	2.6
Mw <sup>1)</sup> [x 10 <sup>5</sup> ]	≥ 2	10.76	9.51	9.36	7.54	
EV [10 <sup>4</sup> Pa s]	≥ 1.4	78.8		29	16.0	5.36
Mn <sup>1), 3)</sup> [x 10 <sup>4</sup> ]	≥ 8	16.6	16.9	14.3	10.2	
G'(170) [KPa] <sup>3)</sup>	≥ 6	17.75	20.28	18.14	7934.2	
η*(170) [KPa] <sup>3)</sup>	≥ 10	26.36	31.29	26.85	13.38	
ASV <sup>2)</sup> [Pa s] <sup>3)</sup>	≥ 350	558	623	537	398	

- 1) Calibrated against Polystyrene
- 2) Apparent Shear Viscosity
- 3) Feature of dependent claim(s) only

It was submitted that the data showed that if the melt flow rate (MFR) decreased the Mw and EV increased, and that Mw and EV could be roughly estimated based on the MFR. Further it was apparent that a polypropylene having a MFR substantially higher than that of "PP-

20(B)" still fulfilled the requirements of operative claim 1. Accordingly the skilled person could clearly and unambiguously derive from the MFR of "PP-20(B)" that the requirements of operative claim 1 had to be fulfilled without the need for any further knowledge about the exact nature of "PP-20(B)". Similarly it was argued that the "PP-22(B)" of example 7 of D2, having a MFR of 0.05 g/10 min would, by the same token, meet the requirements defined in the operative claims.

VII. The Board issued on 20 November 2007 a summons to attend oral proceedings.

In the accompanying communication the Board noted the requests of the appellant (see sections V.(a) and (b) above) and observed that the status of the set of claims entitled "Main Request" submitted together with the statement of grounds of appeal was not clear in view of the request numbered "1."

In this connection it was noted that the set of claims submitted with the statement of grounds of appeal and entitled "Main Request" was not identical to those of the patent as granted, attention being drawn in particular to claims 1, 3, 4, 12 and 15.

Attention was also drawn to a number of deficiencies in the set of claims entitled "First Auxiliary Request". The final date for submissions was set at one month before the oral proceedings.

VIII. In a letter dated 31 December 2007, the appellant submitted a total of eight sets of claims entitled "Main Request" and "Auxiliary Request 1" - "Auxiliary Request 7".

In the paragraph of the letter entitled "1 Requests" it was stated *inter alia*:

"In order to take away any possible unclarity, the patent proprietor makes the following formal requests:

1. The patent proprietor requests to set the decision of the opposition division aside and to maintain the claims as granted (main request as attached hereto).
2. As further requests, auxiliary requests 1-7 are filed (as attached hereto)."

It was further confirmed that the request for oral proceedings was maintained and that the sets of claims submitted with the letter of 13 June 2006 (i.e. the statement of grounds of appeal - see section V above) were withdrawn.

Claim 1 of the set of claims entitled "Main Request" attached to this submission, was identical to that submitted with the statement of grounds of appeal (See section V.(b) above). Thus this claim read as follows:  
"1. Foamable polymeric composition, comprising a thermoplastic elastomer on the basis of a polyolefin and a rubber, wherein the polyolefin is a polypropylene homo- or copolymer having:

- a weight average molecular weight,  $M_w$  (determined using gel permeation chromatography (GPC) at a temperature of 145°C), of at least  $2 \cdot 10^5$ , and
- an elongation viscosity (measured at a temperature of 170°C, at a rate of elongation of  $0.03 \text{ s}^{-1}$  and at a time of 10 s),  $EV(170/10)$ , of at least  $1.4 \cdot 10^4 \text{ Pa.s.}$ "

Claims 2-16 of this request corresponded to claims 2-16 of the patent as granted.

- Claim 1 of the set of claims entitled "Auxiliary Request 1" differed from claim 1 of the main request in that the claim further specified the storage modulus, which feature had been present in claim 6 as granted.

Claims 2-5 and 6-15 of this request corresponded to claims 2-5 and 7-16 of the main request.

The further requests filed with this letter are not of relevance for this decision.

With respect to D2 and the availability of "PP-20(B)" it was submitted that this material was not available to the public. Despite an explicit request to the respondent to "give all information necessary to obtain this material", the respondent had failed to provide any information.

The appellant listed further reasons in support of its contention that "PP-20(B)" was not publicly available:

- Internet searches had not revealed any (commercial) supplier of "PP-20(B)" nor any clues as to where the material could be found. Hence "PP-20(B)" could not be the name under which the stated material was available.
- The reference to "PP-20(B)" in D2 was between quotation marks, indicating this was a name which had been made up by the applicant of D2, which was a company related to the company of the opponent.
- The opponent had indicated commercial sources of other polypropylenes in the letter of 2 January 2007, ("PS201A" and "EA9") but not of "PP-20(B)".

The reported properties (melt flow rate and density) were not sufficient on their own directly and

unambiguously to characterise the polypropylene material used. Properties such as tensile strength and flex modulus, necessary uniquely to identify the polypropylene were absent from D2. Accordingly the material designated "PP-20(B)" could mean several different polypropylenes.

Since "PP-20(B)" could not be reproduced it could not be considered prior art according to G 1/92 (OJ EPO 1993, 277) and hence D2 was not relevant for novelty considerations.

IX. In a letter dated 17 January 2008 the appellant stated that a technical expert, Mr. Yundong Wang would attend the oral proceedings and requested permission for Mr. Wang to speak at the oral proceedings "concerning technical matter supplementing the submissions of the professional representatives should this be necessary".

X. Oral proceedings before the Board were held on 31 January 2008.

(a) *Main request*

The Board, with reference to its communication (see section VII above) invited the appellant to clarify the main request, in particular whether this was the claims as granted or the claims entitled "Main Request" as submitted with the letter of 31 December 2007 (see sections V and VIII above).

The appellant maintained that there was no difference between the claims of the patent as granted and the set of claims, entitled "Main Request" of 31 December 2007.

Even after the Board drew the attention of the appellant to the discrepancy in claim 1 concerning

"elongational viscosity" in the granted claim and "elongation viscosity" in the text as submitted, the appellant still maintained its position that there was no difference from the claims as granted. The intention of the patentee would have been clear from the letters and the skilled person would in any case recognise that the terms were synonymous and hence that the discrepancy was of no technical relevance. In this respect it was proposed to allow the technical expert to make submissions. It was further proposed to amend the submitted text to remove the discrepancy, "if the Board so wished". Specific amendments were however not tendered.

The respondent submitted that the different wording resulted in subject matter extending beyond the content of the application as filed (Art. 123(2) EPC) and resulted in an extension compared to the scope of the patent as granted (Art. 123(3) EPC). The respondent further resisted the proposal of the appellant to submit further amendments.

Following deliberation the Board informed the parties that the main request was refused.

(b) *First auxiliary request as submitted with letter of 31 December 2007*

The appellant requested permission to correct the first auxiliary request as submitted with the letter of 31 December 2007 (see section VIII above). The appellant again emphasised that the objected terms "elongational" and "elongation" were synonymous. The difference arose from a

typographical error, which would be immediately recognised by the skilled reader. Attention was directed to parts of the description where both terms were employed.

It was again proposed that the technical expert make submissions in this respect. It was submitted that the attendance of a technical expert had been signalled in the letter of 31 December 2007. The identity of the technical expert had been transmitted as soon as this was known, the disruption arising from the Christmas/New Year holiday period being invoked as the reason for not clarifying this aspect sooner.

The respondent maintained its objections pursuant to Art. 123(2) and (3) EPC in respect of the difference between the two terms as for the main request. The request to allow the technical expert to make submissions was opposed by the respondent, referring to G 4/95 (OJ EPO 1996, 412), arguing that the expert had not been properly announced either sufficiently in advance of the oral proceedings or with respect to the nature of the submissions to be made.

Following deliberation the Board informed the parties that it was not prepared to hear the technical expert on the terminology issue.

- (c) Following a break the appellant submitted amended sets of claims designated "Auxiliary Request 1" and "Auxiliary Request 2".

The respondent did not object to the filing of the new requests.

Following an observation by the Board that the first auxiliary request was identical to claim 1

as granted, i.e. was identical to one of the two sets of claims presented as the "main request", which main request had already been refused, the appellant withdrew the amended first auxiliary request.

(d) **Amended** *second auxiliary request as submitted at the oral proceedings before the Board*

The set of claims forming the amended second auxiliary request was the set of claims submitted with the letter of 31 December 2007 as the "Auxiliary Request 1", however with the amendment of the term "elongation viscosity" to read "elongational viscosity" (see section VIII above). Accordingly claim 1 of the second auxiliary request read as follows:

"1. Foamable polymeric composition, comprising a thermoplastic elastomer on the basis of a polyolefin and a rubber, wherein the polyolefin is a polypropylene homo- or copolymer having:

- a weight average molecular weight,  $M_w$  (determined using gel permeation chromatography (GPC) at a temperature of 145°C), of at least  $2 \cdot 10^5$ , and
- an elongational viscosity (measured at a temperature of 170°C, at a rate of elongation of  $0.03 \text{ s}^{-1}$  and at a time of 10 s),  $EV(170/10)$ , of at least  $1.4 \cdot 10^4 \text{ Pa.s}$ .
- a storage modulus (measured at 1 rad/s and at a temperature of 170°C),  $G'(170)$ , of at least 6 kPa."



Claims 2-5 and 6-15 of this request corresponded respectively to claims 2-5 and 7-16 of the patent as granted.

(i) *Formal issues*

The respondent raised no formal objections to the amended claims.

(ii) *Novelty*

With respect to novelty, the respondent maintained only the objection in view of D2. With respect to D2, and the disclosure therein of "PP-20(B)", reference was made to the submissions already made and the findings of the decision under appeal. It was further submitted with reference to the comparisons submitted during the written appeal proceedings (see section VI above) that from the melt flow rate reported in D2 for "PP-20(B)" the skilled person would know that "PP-20(B)" would fulfil the parameters defined in operative claim 1. There was no reason to assume that the correlation between properties derivable from the table would not also apply to "PP-20(B)". It was however acknowledged that there did not exist a rigorous mathematical relationship between the various properties but that general correlations could be derived. It was submitted that "PP-20(B)" was available, as shown by the fact that tests thereon had been carried out.

The appellant reiterated its submissions from the written procedure regarding the non-availability of "PP-20(B)" (see sections

V and VIII above). With regard to the correlation between properties relied upon by the opponent it was submitted that such correlations were critically affected by degree of branching and length of branches in the polypropylene. Without knowledge of this it was impossible to estimate how the EV value would vary with respect to other properties of the polymer, in particular the MFR.

Following deliberation the Board announced its decision that the subject matter of the second auxiliary request was novel.

(iii) *Inventive step*

The respondent maintained its objections pursuant to Art. 56 EPC, and acknowledged that the question of remittal was for the discretion of the Board.

The appellant requested that the issue of inventive step be dealt with by the Board at the oral proceedings, and accordingly not to remit the case to the first instance.

Following deliberation the Board announced its decision to remit the case to the first instance.

- (e) The appellant clarified its requests as follows:  
Main Request as submitted with the letter of 31 December 2007.  
Auxiliary Request 2 as submitted at the oral proceedings before the Board.  
The claims submitted as Auxiliary Request 2 to

Auxiliary Request 7 with the letter of 31 December 2007 were maintained.

The respondent maintained its request for dismissal of the appeal.

## Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

2.1 Art. 113(2) EPC states (Board's emphasis):

"The European Patent Office shall examine and decide upon the European patent application or the European patent only in the **text submitted to it**, or **agreed**, by the applicant or the proprietor of the patent"

The consequence of this is that the Board is bound by the requests made by the parties and can only allow or refuse the requests explicitly formulated (see also Singer, 6. Edition section Vor §34 7).

2.2 The main request of the appellant in the present case both in the Statement of Grounds of Appeal (see section V above) and after the communication of the Board (see section VIII above) was to set the decision under appeal aside and maintain the claims as granted. According to this explicit statement of the appellant the text "**agreed**" was thus, unambiguously, the claims of the patent as granted.

2.3 However both submissions included a set of claims entitled "Main Request", to which reference was explicitly made in the submission of 31 December 2007 by means of the phrase "(main request as attached hereto)" (see section VIII above). This "main request

- as attached hereto" thus constituted the text "**submitted**".
- 2.4 These two texts were however not identical. In particular in the text **agreed**, i.e. the claims as granted claim 1 contained in the second indent the term "elongational" viscosity. In the text **submitted** the term "elongational" had been replaced by "elongation".
- 2.5 The appellant had been informed in a communication by the Board that there existed discrepancies in its requests, *inter alia* in claim 1 thereof (See section VII above). Nevertheless, the appellant resubmitted a copy of claim 1 diverging in its text from that of claim 1 as granted. Thus in the requests as submitted, the noted discrepancy was explicitly maintained (see section VIII above, the request numbered "1.>"). Even after detailed discussion of this at the oral proceedings the appellant failed to clarify which set of claims constituted the main request, instead submitting that the discrepancy was of no consequence (section X.(a) above).
- 2.6 The submission of the appellant that the noted discrepancy was of no **technical** consequence is however irrelevant insofar as it does not assist in resolving the **legal** issue in question, namely which **text** of the two sets of claims advanced as the main request, either that **submitted**, or that **agreed** actually constituted the text upon which the decision of the Board should be based in the sense of Art. 113(2) EPC.
- 2.7 This conclusion cannot be altered by the fact that the terms "elongational viscosity" and "elongation viscosity" are used interchangeably in various other

parts of the patent specification since Article 113(2) EPC requires a defined **text**.

2.8 In view of the failure of the appellant to identify which set of claims, and hence which **text** formed its main request, the Board pursuant to Art. 113(2) EPC, had no alternative but to refuse said main request.

2.9 Accordingly the main request was refused.

### 3. *Second auxiliary request*

There was no ambiguity concerning which claims constituted this request (see section X.(d) above).

#### 3.1 *Art 84, 123(2) and (3) EPC*

The respondent raised no objections pursuant to these Articles against the claims of the second auxiliary request, nor has the Board any objections of its own.

#### 3.2 *Art. 54 EPC*

3.2.1 Claim 1 of the second auxiliary request specifies a composition comprising a polypropylene homo- or co-polymer having a defined  $M_w$ , EV and storage modulus (see section X.(d) above).

A consequence of the definition in the claim of the storage modulus is that it is not necessary to consider the relevance of "PF-814", since it was not disputed that the measured value of the storage modulus of this polypropylene was outside the scope of claim 1 of the second auxiliary request (cf X.(d).(ii) above).

3.2.2 D2 (constituting prior art pursuant to Art. 54(3) EPC), discloses in example 1 a polypropylene, identified as "PP-20(B)" which is stated to have a melt flow rate (ASTM D 1238-65T, 230°C, 2.16 kg) of 0.3 g/10 minutes and a density of 0.91 g/cm<sup>3</sup>.

However there is no mention in D2 of the  $M_w$ , EV or storage modulus of "PP-20(B)".

3.2.3 Accordingly the explicit literal disclosure of D2 does not make available to the public a polypropylene having the properties specified in claim 1 of the second auxiliary request.

3.2.4 The respondent/opponent employed two routes in order to attempt to repair this deficiency.

(i) Submission with the notice of opposition of evidence that the properties of "PP-20(B)" satisfied the requirements of the operative claims (section II above).

(ii) Submissions during the appeal procedure to establish correlations between those properties of "PP-20(B)" which were explicitly disclosed (see section 3.2.2 above) and the relevant properties of other similar polypropylenes in order to demonstrate that, based on the disclosed properties of "PP-20(B)" the  $M_w$ , EV and storage modulus would be within the range as specified in operative claim 1, i.e. were implicitly disclosed (see section VI above).

3.2.5 Concerning approach (i), a matter which arose in the course of the appeal procedure was whether "PP-20(B)" had in fact been available to the public at the filing date of the patent in suit (see sections V.(c) and VIII above).

(a) D2 discloses neither a commercial source of "PP-20(B)", nor the manner in which it is manufactured. Nor has the respondent - despite being explicitly invited to do so (see section VIII above) - identified such a source.

Accordingly there is no evidence that a product identifiable with "PP-20(B)" was available at the relevant date to the public other than within the

terms of the disclosure set out in D2 itself. Thus there is no evidence that there existed a product which would have been susceptible of being tested as reported in the notice of opposition (see section II above).

- (b) In G 1/92 (OJ EPO 1993, 277) the Enlarged Board of Appeal held that the chemical composition of a product was state of the art when the product as such was available to the public and could be analysed and reproduced by the skilled person.
- (c) As no evidence has been provided that "PP-20(B)" was available to the public, the product is not susceptible to analysis by third parties. Accordingly the only properties of "PP-20(B)" which can be regarded as belonging to the state of the art are those specifically disclosed in D2 (see section 3.2.2 above). Properties of "PP-20(B)" - such as the Mw and EV - which are not explicitly disclosed in D2 thus do not belong to the state of the art.
- (d) Accordingly the reference to "PP-20(B)" in D2 does not directly and unambiguously anticipate the subject matter of claim 1 of the second auxiliary request.

3.2.6 Concerning the approach (ii) set out in section 3.2.4 above the respondent advanced evidence and arguments together with the response to the statement of grounds of appeal that the required properties could nevertheless be derived by correlation with one of those properties of "PP-20(B)" that was explicitly disclosed in D2, namely the MFR (see section VI above). In other words, it was submitted that these properties of "PP-20(B)" were implicitly derivable from D2.

- (a) The correct standard to apply when deciding upon an implicit anticipation is the strict one of "beyond all reasonable doubt" and not merely on the "balance of probability" (see T 793/93, 27 September 1995, not published in the OJ EPO, section 2.1 of the reasons).
- (b) The respondent has not provided any evidence or arguments that the alleged correlations were of general validity. On the contrary, the respondent acknowledged that a rigorous mathematical relationship between the various properties did not exist (section X.(d).(ii) above).
- (c) Even if, nevertheless, it were accepted that the alleged correlations were qualitatively valid, it has been submitted by the appellant, and not disputed by the respondent, that the nature of the relationship between the melt flow rate and the other properties of the polymer, in particular the EV would be affected by the degree and length of branching (see section X.(d).(ii) above). However, no information has been provided by the respondent about the structure of the polymers employed in its comparison. It has not been demonstrated that these polymers are of comparable or of similar structure in general, and in particular no submissions have been made concerning the branching structure. Finally and crucially, no evidence has been advanced regarding the structure of "PP-20(B)" and the degree of similarity between the structure thereof and the other polymers referred to.
- (d) Accordingly it has not been shown that the alleged correlation between the melt flow rate and other properties of "PP-20(B)" is valid to establish



unambiguously that the disclosure of the MFR of "PP-20(B)" in D2 implicitly makes available - beyond all reasonable doubt - the EV, Mw and storage modulus thereof.

3.3 Accordingly neither the explicit nor the implicit disclosure of D2 establishes that "PP-20(B)" constitutes prior art anticipating the subject matter of claim 1 of the second auxiliary request.

3.4 The subject matter of claim 1 of the second auxiliary request is therefore novel. Since claims 2-15 are dependent on claim 1 the subject matter of these claims is likewise novel.

4. *Inventive step*

The decision under appeal considered only novelty. Although there was some discussion of inventive step during the written appeal proceedings, the operative claims were not part of those considerations. Under these circumstances the Board considers it appropriate to remit the case to the first instance for consideration of the matter of inventive step.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of auxiliary request 2 (claims 1 to 15) submitted at the oral proceedings.

The Registrar:

The Chairman:

E. Görgmaier

R. Young