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D E C I S I O N
of 13 June 2003

Case Number: T 0788/01 - 3.3.3

Application Number: 95909313.9

Publication Number: 0741762

IPC: C08L 77/00

Language of the proceedings: EN

Title of invention:

Polyamide resin composition and molding thereof

Patentee:

E.I. DU PONT DE NEMOURS AND COMPANY

Opponent:

BP Corporation North America Inc.

Headword:

-

Relevant legal provisions:

EPC Art. 54(3) (4), 56, 88, 104, 107
RPBA Art. 11a

Keyword:

"Parties to appeal - opponent"
"Novelty, inventive step (yes)"
"Apportionment of costs (no)"

Decisions cited:

G 0003/97, G 0002/98, G 0001/03 G 0002/03

Catchword:

-



Case Number: T 0788/01 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 13 June 2003

Appellant: BP Corporation North America Inc.
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Representative: Witz, Michael
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Respondent: E.I. DU PONT DE NEMOURS AND COMPANY
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Representative: Carpmaels & Ransford
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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office posted 30 May 2001
concerning maintenance of European patent
No. 0 741 762 in amended form.

Composition of the Board:

Chairman: R. J. Young
Members: W. J. Sieber
J. H. Van Moer

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 741 762, in respect of European patent application No. 95 909 313.9, based on International application No. PCT/US95/00936, filed on 25 January 1995 and claiming a JP priority of 26 January 1994 (006937/94) was published on 22 April 1998 (Bulletin 1998/17). Claim 1 read as follows:

"1. A polyamide resin composition comprising:

- (A) 30 to 90 weight percent, based on components (A) and (B), of a polyamide resin containing
 - (i) 10-99 weight percent, based on components (i) and (ii) of an aromatic polyamide containing a carboxylic acid component derived from terephthalic acid or a mixture of terephthalic and isophthalic acid in which the isophthalic acid constitutes 40 mole percent or less of the mixture, and an aliphatic diamine component derived from a mixture of hexamethylene diamine and 2-methylpentamethylene diamine; and
 - (ii) 1-90 weight percent, based on components (i) and (ii), of at least one polyamide selected from the group consisting of polyamides containing repeat units derived from aliphatic dicarboxylic acids and aliphatic diamines and polyamides containing repeat units derived from aliphatic aminocarboxylic acids; and
- (B) 10-70 weight percent, based on components (A) and (B), of an inorganic filler."

Claim 2 was a dependent claim directed to an elaboration of the polyamide resin composition of Claim 1.

Claim 3, an independent claim, was directed to an article moulded from a polyamide resin composition as recited in Claim 1.

Claims 4 to 6 were dependent claims directed to elaborations of the article according to Claim 3.

II. A Notice of Opposition was filed on 22 January 1999 by BP Amoco Corporation, on the grounds of Article 100(a) EPC (lack of novelty and lack of inventive step). The relevant documents cited in the opposition procedure were:

- D1: WO-A-94/25530;
- D2: US 08/054208, first priority document of D1 (30 April 1993);
- D3: US 08/230052, second priority document of D1 (19 April 1994);
- D4: US-A-5 064 716;
- D6: WO-A-92/10525;
- D7: US-A-4 937 322; and
- D8: US-A-4 937 315.

III. By an interlocutory decision which was announced orally on 10 May 2001 and issued in writing on 30 May 2001, the opposition division refused the main request and decided that the patent could be maintained in amended form according to the first auxiliary request.

Claim 1 of the first auxiliary request differed from Claim 1 as granted in that the amounts of components (A) and (B) were limited to 45 to 85 weight percent and 15 to 60 weight percent, respectively, and in that component (B), ie the inorganic filler, had to be selected from the group consisting of glass fibres and glass flakes.

Claims 2 to 6 corresponded to Claims 2 to 6 as granted.

According to the decision, Claim 1 of the main request lacked clarity (Article 84 EPC) but the claims of the first auxiliary request met the requirements of the EPC:

- (a) The subject-matter of Claim 1 of the first auxiliary request was regarded novel over D1, a document to be considered under Article 54(3) and (4) EPC, because multiple selections from the ranges disclosed in D1 would be required to arrive at something falling within the scope of Claim 1. Furthermore, it was held that only that part of the disclosure of D1 had to be taken into account which was entitled to the earlier priority date of priority document D2. Examples of D1 not disclosed in D2 were not entitled to the earlier priority and, thus,

not novelty destroying to the subject-matter of Claim 1.

- (b) Although the polyamides used in the blends of D4 could be equivalent to polyamides (A)(i) and (A)(ii) of Claim 1, D4 did not disclose glass fibres or glass flakes as components of these blends.

- (c) D6 was considered to represent the closest prior art. The problem underlying the patent in suit vis-à-vis D6 was seen as to provide a polyamide resin composition with excellent fluidity in the moulding operation without loosing in other desired properties, in particular low dimensional change due to moisture absorption. The solution to this problem, ie blending of aliphatic into semiaromatic polyamides, was not obvious from the available prior art because none of the cited prior art documents, in particular D7 or D8, contained a hint that the above cited problem would be solved by the blending of aliphatic into semiaromatic polyamides.

IV. On 11 July 2001, a Notice of Appeal against the above decision was filed by the opponent BP Amoco Corporation (hereinafter referred to as the appellant), the prescribed fee being recorded as paid on the same day.

In the Statement of Grounds of Appeal, filed on 9 October 2001, the appellant notified the board that the appellant, BP Amoco Corporation, had changed its name to BP Corporation North America Inc. and filed corresponding papers including a "Certificate of

Amendment" as documentary evidence for the change of name. As to the merits of the appeal, it argued in substance as follows:

- (a) The limitation of component (B) to 15 to 60 weight percent did not create novelty over D1 since recalculation of maximum and/or minimum values of explicitly disclosed ranges in D1 led to embodiments falling within the scope of Claim 1 of the first auxiliary request of the decision under appeal.

Furthermore, although Examples 12, 14 and 17 of D1 were not disclosed in the priority document D2, they still enjoyed the priority of D2 since the disclosure of D2 had to be considered as a whole. Thus, they were novelty destroying to the subject-matter of Claim 1 of the first auxiliary request.

- (b) With respect to novelty over D4, which disclosed a blend of polyamides with the optional presence of a filler, the appellant contended that, although not explicitly mentioned, the skilled person would certainly choose glass fibres or glass flakes as the filler of choice for a polyamide blend.
- (c) Having regard to inventive step, it was argued that the physical properties of the claimed blend, relied upon by the proprietor, were mere linear mixing effects that could easily be predicted by weight average calculations from the individual polyamides. Hence, nothing inventive could be seen in the claimed subject-matter of the first auxiliary request. Calculation sheets were submitted to support this argumentation.

Furthermore, a combination of D6 and D7 or D6 and D8, respectively, would suggest to add an aliphatic polyamide to the composition according to D6, the closest prior art, in order to further improve the properties of the latter composition.

- V. The proprietor (hereinafter referred to as the respondent) disagreed, in a submission filed on 16 April 2002, with the objections of the appellant, and requested that the appeal be dismissed and the patent be maintained on the basis of Claims 1 to 6 as maintained by the opposition division (refiled as main request). The submission was further accompanied by a first and a second auxiliary request. Furthermore, the respondent requested, as an auxiliary motion, to refer a question to the Enlarged Board of Appeal concerning the permissibility of a disclaimer having no support in the application as filed.
- VI. Following a summons, issued on 21 June 2002, to oral proceedings scheduled for 18 October 2002, the representative of the appellant, Mr Witz, indicated, in a letter filed on 18 September 2002, that he would represent the opponent. Since he had changed his association after filing the appeal and the statement of grounds of appeal, he requested the board to indicate whether a power of attorney should be submitted. It was requested, by the registrar of the board, by telephone (23 September 2002) that a power of attorney be submitted.
- VII. On 18 October 2002, oral proceedings were held before the board. At the beginning of the oral proceedings, the representative of the appellant filed a letter dated 17 October 2002 indicating that the opponent had

transferred business assets, in particular business assets in the interest of which the opposition had been filed, onto Solvay Polymers, Inc., and requested that the European Patent Office updated the European Patent Register accordingly. Annexed to the letter was a declaration from BP America Inc. (parent company to BP Corporation North America Inc.), dated 15 October 2002, which indicated that BP Amoco Polymers Inc. had transferred to Solvay Polymers, Inc. assets of its engineering polymers business to which the present opposition pertained, and, therefore, Solvay Polymers, Inc. might proceed with the opposition on its own behalf. Furthermore, the letter contained two general authorisations from Solvay Polymers, Inc. (dated 13 January 1999 and 5 May 1999) and an authorisation from Solvay Polymers, Inc. dated 15 October 2002 which authorised - *inter alia* - Mr Witz to represent Solvay Polymers, Inc. in the present case. Since, however, both the opposition and the appeal had been filed by BP Amoco Corporation (now BP Corporation North America Inc.), and there was no evidence on file that the opposition had ever been transferred from BP Amoco Corporation (now BP Corporation North America Inc.) to BP Amoco Polymers Inc., these documents were considered by the board to raise questions as to the identity of the opponent/appellant and whether the representative himself was duly authorised to argue the case before the board. The board decided to continue the procedure in writing without having discussed the merits of the appeal.

- VIII. In a communication issued on 25 October 2002, the appellant was given a time limit of two months to clarify the situation with regard to the identity of the opponent/appellant and the representative's authorisation.
- IX. With submissions received on 23 December 2002, the appellant filed a letter from BP Corporation North America Inc. (dated 17 December 2002) where it was stated that the opposition was originally filed "at the request of, on the behalf of, and for the benefit of BP Amoco Polymers, Inc." Thus, there was an uninterrupted chain of titles linking the opposition/appeal to the business assets of BP Amoco Polymers Inc. that had been transferred to Solvay Polymers, Inc. which had therefore acquired the status of the opponent/appellant. Nevertheless, the appellant filed an authorisation from BP Corporation North America Inc. dated 18 December 2002 which authorised - *inter alia* - Mr Witz to represent BP Corporation North America Inc. in the present case.
- X. In a letter filed on 21 February 2001, the respondent submitted that the clarification of the identity of the opponent/appellant was still needed.
- XI. With a communication of 13 March 2003, the board summoned the parties for further oral proceedings, and expressed its preliminary, provisional opinion that, according to the state of the file, the opponent and appellant, respectively, were still BP Corporation North America Inc. (formerly BP Amoco Corporation). Since, furthermore, the representative of the appellant had provided an authorisation from BP Corporation North America Inc., the case should be continued with

BP Corporation North America Inc. as the appellant legitimately represented by Mr Witz.

XII. In a letter filed on 11 March 2003 that apparently crossed with the summons to oral proceedings, the appellant took the position that Solvay Polymers, Inc. was the opponent and repeated its request that the European Patent Register be updated accordingly.

XIII. The second oral proceedings were held on 13 June 2003 where the representative of the appellant withdrew his request to change the name of the opponent in the European Patent Register and confirmed to the board that he was representing BP Corporation North America Inc. as the appellant.

The respondent refiled its main request and first and second auxiliary requests in order to correct an inadvertently amended figure in Claim 2 of all requests then on file.

(i) Claims 1 to 6 of the main request corresponded with Claims 1 to 6 as maintained by the opposition division.

(ii) The claims of the first auxiliary request corresponded with the claims of the main request with the further limitation at the end of Claim 1: *"and provided that said polyamide resin composition does not comprise a mineral filler"*.

(iii) The claims of the second auxiliary request corresponded with the claims of the main request with the further optional feature added at the end of Claim 1: *"and (C) optionally, appropriate*

amounts of additives selected from the group consisting of thermal stabilizers, plasticisers, oxidation inhibitors, dyes, pigments and mold-release agents".

In view of the pending cases G 1/03 and G 2/03, the respondent withdrew its auxiliary request to refer a question to the Enlarged Board of Appeal concerning the permissibility of a disclaimer (section V, above).

In the discussion of the merits of the appeal, both parties basically relied on their written submissions.

XIV. The appellant requested that the interlocutory decision under appeal be set aside, the patent in suit be revoked in its entirety, and that no costs be awarded to the respondent.

The respondent requested that the appeal be dismissed, and that:

- the patent be maintained on the basis of claims 1 to 6 as maintained by the opposition division and refiled during the oral proceedings held on 13 June 2003 (main request); or, in the alternative,
- the patent be maintained on the basis of claims 1 to 6 filed as first auxiliary request during the oral proceedings held on 13 June 2003; or
- the patent be maintained on the basis of claims 1 to 6 filed as second auxiliary request during the oral proceedings held on 13 June 2003;

and

- an apportionment of 100% of its costs for attending the second oral proceedings.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 EPC and Rules 1(1) and 64 EPC and is therefore admissible.
2. *Procedural matter*
 - 2.1 At the first oral proceedings and in the following written procedure, the appellant contended that there was an uninterrupted chain of titles indicating a transfer of the opposition from BP Amoco Corporation onto Solvay Polymers, Inc. because:
 - (i) the original opposition had been filed by BP Amoco Corporation (now BP Corporation North America Inc.) "at the request of, on the behalf of, and for the benefit of BP Amoco Polymers Inc.", and
 - (ii) BP Amoco Polymers Inc. had transferred business assets, in particular business assets in the interest of which the opposition was filed, onto Solvay Polymers, Inc.

Thus, Solvay Polymers, Inc., had acquired the status of the opponent/appellant and should be permitted to proceed on its own.

- 2.2 In the board's preliminary, provisional opinion expressed in the annex to the second oral proceedings, it was pointed out that, according to the state of the file, the opponent and appellant, respectively, was still BP Corporation North America Inc. (formerly BP Amoco Corporation).
- 2.3 The board could not come to any other conclusion since there is no uninterrupted chain of titles as alleged by the appellant. In fact, this chain of titles is defective already at the very beginning thereof.
- 2.3.1 The appellant alleged that the opposition was filed "at the request of, on the behalf of, and for the benefit of BP Amoco Polymers Inc." although both the opposition and the appeal were filed in the name of BP Amoco Corporation (now BP Corporation North America Inc.). In other words, BP Amoco Corporation was acting on behalf of a third party. Whilst such an opposition is not inadmissible purely because the person named as the opponent according to Rule 55(a) EPC is acting on behalf of a third party, provided that there is no circumvention of the law by abuse of process (G 3/97; OJ EPO, 1999, 245; Headnote), G 3/97 holds that such a person who fulfils the requirements of the EPC for filing an opposition becomes an opponent. This also applies where the opponent is in fact acting in the interest of a third party. By filing the opposition, he himself has assumed the procedural status of an opponent. Therefore, in relation to the patent proprietor and the EPO, he is the only person who matters (G 3/97; point 2.1 and 3.2.2 of the reasons).

2.3.2 Thus, the fact that the third party which allegedly incited the opponent to file the opposition, ie BP Amoco Polymers Inc., transferred business assets to Solvay Polymers, Inc. does not affect the status of the 'true' opponent, ie BP Corporation North America Inc. (formerly BP Amoco Corporation). In other words, BP Corporation North America Inc. remains the opponent in the present case, who is entitled to appeal in the sense of Article 107 EPC.

2.4 In view of the board's preliminary, provisional opinion on this issue, the appellant withdrew its request that the European Patent Register be amended to indicate Solvay Polymers, Inc. as the opponent/appellant during the oral proceedings, so that the case was continued with BP Corporation North America Inc.

3. *Amendments (main request)*

According to the decision under appeal, the subject-matter of the amended claims meets the requirements of Article 84 and 123 EPC (point 3.1 of the reasons for the decision). The board sees no reason to depart from that view. Nor was any objection under Articles 84 and 123 EPC raised by the appellant against the amendments.

4. *Novelty (main request)*

4.1 Document D1

4.1.1 Priority situation of D1

D1 constitutes a prior art document in the sense of Article 54(3) and (4) EPC. It claims two priorities, ie

from US 08/054208 of 30 April 1993 (D2) and US 08/230052 of 19 April 1994 (D3), of which only D2 is earlier than the priority date of the patent in suit (26 January 1994). It follows from G 2/98 (OJ EPO, 2001, 413; point 9 of the reasons for the opinion) that a narrow or strict interpretation of the concept of "the same invention", equating it to the concept of "the same subject-matter" referred to in Article 87(4) EPC, has to be applied in the assessment of priority. Thus, priority of a previous application in respect of a claim in a European patent application in accordance with Article 88 EPC is to be acknowledged only if the person skilled in the art can derive the subject-matter of the claim directly and unambiguously, using common general knowledge, from the previous application as a whole. This means for the present case that only those parts of the contents of D1 which are clearly and unambiguously derivable from D2 are validly entitled to the priority of D2, and therefore citable against the opposed patent.

- 4.1.2 D1 discloses a polymeric composition comprising (a) a first polyamide prepared from an aromatic carboxylic acid component and an aliphatic diamine component, said aliphatic diamine component being a mixture of hexamethylene diamine and 2-methyl-1,5-pentamethylene diamine, (b) a second polyamide selected from an aliphatic polyamide, a semiaromatic polyamide, or mixtures or blends thereof, and (c) a mineral filler (Claim 1). The aromatic carboxylic acid component of the first polyamide (a) can be terephthalic acid or mixtures of terephthalic acid and isophthalic acid in which the amount of isophthalic acid is preferably less than 40 mole percent of the mixture (Claim 2; page 3, lines 17 to 21). Both the first polyamide (a) and the

second polyamide (b) may constitute 5-50% by weight of the composition (Claims 12 and 13, respectively). Thus, D1 describes compositions which may comprise the same polyamide components as the patent in suit. Having regard to the mineral filler, D1 refers to "kaolin, mica, talc, wollastonite and similar kinds of fillers" (page 6, lines 18 to 19) which may constitute 5-60% by weight of the composition (Claim 14). Since Claim 1 of the main request requires the presence of glass fibres or glass flakes as component (B) the disclosure of interest in D1 is at page 6, lines 27 to 30 of D1, where it is stated that "For the adjustment of the coefficient of linear thermal expansion and HDT (ie heat distortion temperature, explanation by the board), it may be suitable to add a small amount of glass fibers or glass flakes, for example 2-10% by weight of glass fibers or glass flakes". In this context, Examples 7 and 8 of D1 are relevant where small percentages of the usual 50 wt.% filler are replaced by glass fibres or glass flakes so that the compositions Examples 7 and 8 contain 5 wt.% glass fibres and 5 wt.% glass flakes, respectively, both weight percentages being based on the total composition. These parts of the disclosure of D1 are entitled to the priority of D2 since it has explicit counterparts in D2.

4.1.3 When comparing the compositions of Examples 7 and 8 of D1 with the compositions claimed in the patent in suit, it has to be born in mind that the weight percentages of these examples are based on the total composition whereas the weight percentages required in the patent in suit are based on components (A) and (B) only. Thus, the 5 wt.% glass fibres or glass flakes in Examples 7

and 8 of D1 correspond to 9.16 wt.% based on polyamides and glass filler. This is, however, below the range required in Claim 1.

4.1.4 The appellant has also referred to Examples 12, 14 and 17 in D1 that contain 10 wt.% glass fibres based on the total composition corresponding to 16.72 wt.% glass fibres based on polyamides and glass fibres, ie components (A) and (B). However, these examples are not present in D2, and therefore do not enjoy the priority of D2 and cannot be cited against the novelty of the patent in suit (section 4.1.1, above). The appellant's argument that Examples 12, 14 and 17 should be entitled to the priority of D2 since they fall within the generic disclosure of D2, is not compatible with the strict assessment of priority laid down in G 2/98. In other words, a generic disclosure cannot provide priority for a specific embodiment not disclosed in the priority document.

4.1.5 Thus, the only disclosure of interest left in D1 is at page 6, lines 27 to 30 of D1 referring to the addition of a small amount of glass fibres or glass flakes, ie 2-10% by weight of glass fibres or glass flakes.

4.1.5.1 It is evident to the board that the basis for the range of 2 to 10% by weight is not specified in D1. It could refer to 2 to 10% by weight **of the filler**, for example. Such a reading would be supported by the passage in D1 at page 8, lines 31 to 32, where it is stated that "In Examples 6, 7, 8, 10 and 11, a small percentage of the 50 wt.% mineral filler was replaced by 2.5 wt.% or 5 wt.% or either glass fiber or glass flake". On the other hand, it could, as alleged by the appellant, refer to 2 to 10% by weight **of the total**

composition since the percentages of all components in the examples of D1 are based on the total composition (eg Tables 1 and 2). Hence, the reading of the weight percentage for glass fibres or glass flakes in D1 is not necessarily that it refers to percentage by weight of the total composition, as alleged by the appellant. In fact, there remains a lack of clarity in this respect in the teaching of D1.

4.1.5.2 Even if it were assumed, in favour of the appellant, that D1 discloses optionally from 2 to 10 wt.% of glass fibres or glass flakes, **based on the total weight of the composition**, it does not follow that this is a novelty destroying disclosure for Claim 1 of the main request, which specifies from 15 to 60 weight percent of glass fibres or glass flakes, based on the weight of components (A) and (B). This is because D1 discloses compositions containing as little as 10 wt.% polyamide, or as much as 95 wt.% polyamide as follows from the amounts indicated for the two types of polyamides and the mineral filler in Claims 12 to 14 of D1. This range might even be broader since Claim 1 of D1 does not indicate any amount for the two types of polyamides and the mineral filler. In other words, the quantity of glass fibres/glass flakes and the quantity of total polyamide in the compositions of D1 are almost completely independent variables. It is not possible to arrive at compositions within the scope of Claim 1 of the main request without selecting **both** the amount of glass fibres/glass flakes **and** the amount of polyamide from the ranges disclosed in D1. Selecting, for example, a glass fibre content of 10 wt.%, ie the upper limit of the range disclosed on page 6, line 26 of D1, would require at the same time selecting an amount of from 6.67 to 56.67 wt.% of combined

polyamides, based on the total composition, in order to yield a composition falling within the scope of Claim 1 of the main request. The same applies to the appellant's assumed example containing 10 wt.% of glass fibres/ glass flakes and 60 wt.% mineral filler, with the remainder being 30 wt.% combined polyamides. A recalculation of the weight percentages based on components (A) and (B) results in 25 wt.% of glass fibres/glass flakes in this assumed example. Although the two figures 10 wt.% and 60 wt.% are explicitly disclosed in D1, these figures are only disclosed in isolation and not in combination. To come to this combination, a two-fold selection from the disclosure of D1 has to be made.

4.1.5.3 Taking furthermore into account that only the preferred components (a) of D1 have been used in these assumed examples, even more selections have to be made from D1 to arrive at something falling within the scope of Claim 1 of the main request. Such an approach can not destroy the novelty of Claim 1. Thus, the subject-matter of Claim 1 is novel over D1 (Article 54(3) and (4) EPC).

4.2 Document D4

4.2.1 The only other document cited against novelty is D4 which discloses blends consisting essentially of 50 to 95 percent by weight of an ethylene vinyl alcohol copolymer and 5 to 50 percent by weight of a polyamide blend consisting essentially of at least one amorphous polyamide and of at least one semicrystalline

polyamide (Claim 1). Small amounts of other material such as other polymers, processing aids, antioxidants, fillers, pigments, etc. may be included in the blend (column 6, lines 17 to 21).

4.2.2 However, D4 does not specify the small amount of filler and does not mention glass fibres or glass flakes. Thus, the subject-matter of Claim 1 is novel over D4, and there is no need to elaborate on further differences of the claimed subject-matter over D4.

5. *Problem and solution*

5.1 The patent in suit is concerned in general terms with a polyamide resin composition and an article moulded therefrom, wherein the polyamide resin composition comprises

(A) 40 to 85 weight percent polyamide resin containing

(i) an aromatic polyamide, and

(ii) an aliphatic polyamide; and

(B) 15 to 60 weight percent glass fibres or glass flakes.

The composition has excellent fluidity during the moulding process, and it has excellent mechanical characteristics, heat resistance, chemical resistance and dimensional stability when moisture is absorbed, so that it has a wide range of applications, including

parts in automobiles, electrical/electronic parts, and furniture (page 2, lines 5 to 9 of the patent specification).

- 5.2 Document D6, considered as the closest prior art by all parties and the opposition division, discloses aromatic polyamides corresponding to component (A)(i) of the patent in suit which may be moulded into articles, spun into fibres or formed onto films, and used in a wide variety of end-uses especially where high temperature properties are required (abstract). These polyamides can include a wide range of fillers, including glass fibres, eg in amounts of 0.5 to 200 parts of filler per 100 parts of polyamide (page 6, lines 5 to 10).
- 5.3 A composition of the kind described in D6 is evaluated as Comparative Example 1 in the opposed patent. It can be seen from the data in Tables II and III of the patent specification that a composition containing resin (A)(i) and glass fibres has excellent mechanical properties but a low melt fluidity of only 35 (flow length in cm). The compositions according to the invention described in Examples 1, 2 and 3 of the patent in suit also have good mechanical properties, in particular with respect to resistance to water and calcium chloride, but in addition exhibit much higher fluidity of 57 to 77 (flow length in cm). Therefore, the technical problem to be solved by the patent in suit has to be seen in the provision of a composition with improved melt fluidity while maintaining good mechanical properties.

- 5.4 The patent in suit suggests, as a solution to this technical problem, the addition of a second polyamide compound, ie the aliphatic polyamide (A)(ii).
- 5.4.1 As shown in section 5.3 above, the fluidity of the compositions in Examples 1 to 3 is increased while the resistance to calcium chloride is as good as or even better than, and the resistance to water practically as good as for Comparative Example 1 representing the closest state of the art. Furthermore, the values of these inventive examples for tensile strength, tensile breaking elongation, flexural strength, flexural modulus and notched Izod impact (all measured at 23°C) are very close or even equal to the value of Comparative Example 1 containing the pure semiaromatic polyamide.
- 5.4.2 The appellant argued that some of the properties of Examples 1 to 3 are much worse than the corresponding parameters of Comparative Example 1, citing in particular flexural strength and flexural modulus at high temperature, and therefore, the technical problem, ie the provision of a composition with improved melt fluidity while maintaining good mechanical properties, was not solved. However, such a narrow interpretation of the technical problem is, in the board's view, not justified in the present case. Firstly, it cannot be expected that each and every property has to be kept at the same high level, and, secondly, it has not been shown by the appellant that the flexural strength and the flexural modulus at high temperature are unacceptable to such an extent that the blends are not suitable for technical applications.

5.4.3 In summary, the board is satisfied that the above identified technical problem is, on balance, solved by the features identified in Claim 1.

6. *Inventive step (main request)*

6.1 It remains to be decided whether the proposed solution, ie the addition of the aliphatic polyamide (A)(ii), is obvious from the prior art.

6.2 In D6 itself, there is no suggestion as to how the fluidity of the compositions might be further improved, let alone a hint to the addition of an aliphatic polyamide.

6.3 D7 and D8 describe certain semiaromatic copolyamides (D7) and certain amorphous and transparent copolyamides (D8) suitable for moulding of shaped articles, whereby it is essential that the polyamides contain specified amounts of terephthalic acid, 2-methylpentamethylene diamine and hindered aromatic diamine recurring structural units. Reinforcing fillers such as organic and inorganic fibres may be incorporated into the polyamides (D7: column 5, lines 34 to 37; D8: column 5, lines 56 to 62). Furthermore, the polyamides may be blended or mixed with other homo- or copolyamides, *inter alia* nylon 66 (D7: column 5, lines 43 to 60; D8: column 5, line 67 to column 6, line 15).

6.3.1 Both D7 (column 1, lines 61 to 64) and D8 (column 1, lines 51 to 54) seek to improve the thermomechanical stability of polyamides by control of the glass transition temperature (T_g) and the melting temperature (T_m). This is achieved in both documents by introducing

certain structural units into the copolyamide chain, in particular from hindered aromatic diamines. Hence, D7 and D8 address a different technical problem from the patent in suit. Furthermore, the solution taught in these documents, ie chemical modification of the polyamide, is also different from the blending solution taught by the patent in suit. Thus, neither D7 nor D8 teaches or suggests to the skilled person to try blending of polyamides in order to improve fluidity.

6.3.2 The appellant referred to certain passages in D7 (column 5, lines 43 to 60) and D8 (column 5, line 67 to column 6, line 15) that disclose the possibility of blending the polyamides of D7 and D8 with aliphatic polyamides. However, no advantage is stated and there is no suggestion that such blending could solve the technical problem of the opposed patent. The mere fact that D7 and D8 disclose the possibility of blending aromatic and aliphatic polyamides is not sufficient, as alleged by the appellant, to come to the conclusion that it was obvious to modify the polyamides of the closest prior art accordingly. Moreover, the skilled person would have no motivation to apply this isolated teaching of D7 and D8 to the polyamides of D6, so that the combination of D6 with D7 and/or D8 would be based on hindsight.

6.4 Also the appellant's argument that the properties of the claimed blends are simply a linear combination of the properties of the individual polyamides is not convincing. Firstly, polymer blends are not ideal solutions which makes it difficult, if not impossible, to predict the properties of polymer blends. Secondly, the data in Tables 1 to 3 in the patent in suit show

that the values of some properties are equal to the predicted values, some are better and some are worse. Thus, this in itself is an indication that the properties of the claimed polyamide blend is indeed not predictable. Thirdly, the appellant has not provided a document, let alone a document belonging to the prior art, which would support the argument that the properties of polyamide blends could have been predicted from the values of the individual polyamides.

6.5 In summary, the documents cited by the appellant cannot render the claimed subject-matter obvious. The subject-matter of Claim 1 of the main request, and, by the same token, that of Claims 2 to 6 consequently involves an inventive step within the meaning of Article 56 EPC.

7. *Apportionment of costs*

7.1 The respondent requested that the board order an apportionment of 100% of its costs for attending the second oral proceedings, because the documents filed at the first oral proceedings raised questions as to the identity of the opponent/appellant and whether the representative himself was duly authorised to argue the case before the board, making it necessary to continue with the procedure in writing without having discussed the merits of the appeal.

7.2 Admittedly, the second oral proceedings were caused by the obscurity arising from the alleged transfer of opposition and from the missing authorization of the appellant/opponent which was considered by the board as the 'true' opponent/appellant, ie BP Corporation

North America Inc. (sections XI and 2.3.2, above). Nevertheless, the representative of the appellant presented at the first oral proceedings on 18 October 2002 an authorization from Solvay Polymers, Inc. which was considered by the appellant's side as the legitimate owner of the opposition. Furthermore, it is apparent from the dates of the various letters in the file that the representative of the opponent appellant was not in a position to file the documents presented at the first oral proceedings sufficiently earlier to have allowed the board to clarify the situation, especially when taking into account the relatively complex situation of the present case arising from the change of companies of the representative and the alleged change of opponent. Thus, it cannot be concluded that the costs incurred in view of the second oral proceedings were caused intentionally by the appellant or were the result of an abuse of procedure.

7.3 Thus, whilst it is indeed unfortunate that the respondent was involved, through no fault of its own, in the expense of attending two oral proceedings, the circumstances of the case are not such as to lead, for reasons of equity, to a different apportionment of costs, the latter principle being inherent in Article 11a of the Rules of Procedure of the Boards of Appeal relied upon by the respondent, since these Rules are subordinate to the relevant provisions of the EPC.

7.4 In summary, in the present case, the board sees no reason for departing from the principle that each party to the proceedings shall meet the costs it has incurred. Therefore, the respondent's request for apportionment of costs according to Article 104(1) EPC is rejected.

Order

For these reasons it is decided that:

1. The appeal is dismissed.
2. The request for apportionment of costs is rejected.

The Registrar:

The Chairman:

E. Görgmaier

R. Young