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**D E C I S I O N**  
**of 17 June 1999**

**Case Number:** T 0286/96 - 3.3.3

**Application Number:** 87308124.4

**Publication Number:** 0260922

**IPC:** C08G 69/32

**Language of the proceedings:** EN

**Title of invention:**  
Aramid copolymer yarn

**Patentee:**  
E.I. Du Pont De Nemours and Company

**Opponent:**  
Akzo Nobel N.V.

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54

**Keyword:**  
"Novelty (yes) - national prior applications no state of the art - prior disclosure in European application not entitled to priority date"

**Decisions cited:**  
T 0550/88

**Catchword:**  
-





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Boards of Appeal

Chambres de recours

Case Number: T 0286/96 - 3.3.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.3**  
**of 17 June 1999**

**Appellant:** E. I. Du Pont De Nemours and Company  
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**Representative:** Jones, Alan John  
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**Respondent:** Akzo Nobel N.V.  
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**Representative:** Schalkwijk, Pieter Cornelis  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 5 February 1996  
revoking European patent application  
No. 0 260 922 pursuant to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** C. Gérardin  
**Members:** B. ter Laan  
A. Lindqvist

## Summary of Facts and Submissions

I. Mention of the grant of European patent No. 0 260 922 in respect of European patent application No. 87 308 124.4, filed on 15 September 1987 and claiming priority from an earlier application in the USA (909100 of 16 September 1986), was published on 24 November 1993, on the basis of eight claims, Claim 1 reading:

"A yarn of aromatic polyamide consisting essentially of copoly(p-phenylene terephthalamide/2,6-naphthalamide) wherein the mole fraction of 2,6-naphthalamide is from 0.005 to 0.010."

Claims 2 to 6 were directed to preferred embodiments of Claim 1. Claim 7 referred to a method for making a yarn of the copolymer described in Claim 1 and Claim 8 was directed to a preferred embodiment of Claim 7.

II. On 12 August 1994 a Notice of Opposition was filed and revocation of the granted patent in its entirety was requested under Article 100(a) EPC for both lack of novelty and lack of inventive step.

III. In a decision delivered orally on 24 January 1996 and issued in writing on 5 February 1996, the Opposition Division revoked the patent. That decision was based upon the set of eight claims as granted as the main request and a set of five claims, filed on 13 December 1995, as an auxiliary request. Claim 1 of the auxiliary request was directed to a yarn of the same copolyamide as in the main request, further characterized by minimum limits of toughness and tacticity.

The Opposition Division held that the yarns as defined in the claims of the main and auxiliary requests were not novel in view of D1 (EP-A-0 248 458), a prior art document according to Article 54(3) EPC. In particular, it was held that, although D1 was only partly entitled to its priority date, the priority document in its English translation (D1P: NL-A-8601159) disclosed yarns in accordance with the patent as granted as well as the auxiliary request. Therefore, the part of D1 corresponding to D1P disclosed the claimed subject-matter of both requests which, for that reason, was not novel.

IV. On 27 March 1996 the Appellant (Proprietor) lodged an appeal against the above decision and paid the prescribed fee. The Statement of Grounds of Appeal was filed on 23 May 1996.

In that statement and at the oral proceedings held on 17 June 1999, the Appellant argued essentially as follows:

- (a) The Opposition Division compared the claimed subject matter with the disclosure of D1P. However, D1P not being a prior art document, that was not correct. Instead, the claims should have been compared with D1 and then it should have been ascertained whether the parts of D1 which were detrimental for novelty were entitled to the priority date.
- (b) Neither D1 nor D1P disclosed the claimed yarns. In both these documents blends of poly-p-phenylene terephthalate and a copolyamide were used to

prepare yarns. D1 mentioned the use of several possible copolyamides in the blends, one of which was the same as the copolyamide of present Claim 1. There was no suggestion, however, to prepare the specific yarns as now claimed. Contrary to D1, the only copolaymide specified in D1P was the copolyamide used in present Claim 1, but there was no actual disclosure of a yarn as defined in Claim 1 of the patent in suit.

- (c) The Appellant concluded that the claimed subject-matter was novel in view of D1.

V. The Respondent (Opponent)'s written and oral arguments can be summarized as follows:

- (a) There were two possibilities to assess the contents of D1, which was only partly entitled to its priority date: (i) to compare the claimed subject-matter directly with D1P, or (ii) to compare the claimed subject-matter with those parts of D1 which were supported by the priority document. The first option was simpler, but a version of D1, adapted according to the second option, was presented at the oral proceedings.
- (b) Since D1 was not entitled to its priority date for the additional subject-matter, the Opposition Division was correct in interpreting D1 in the light of the disclosure of D1P and in not taking into account that additional subject-matter.
- (c) D1 explicitly disclosed the 2,6-N copolyamide as well as the same method to prepare fibres as in

the patent in suit. In the examples only two copolyamides were used for preparing yarns, one of which being the 2,6-N copolyamide of present Claim 1. Therefore, D1 took away the novelty of the claimed subject-matter.

(d) The Respondent concluded that the claimed subject-matter was not novel over D1.

VI. The Appellant requested that the decision under appeal be set aside and the patent be maintained as granted, alternatively on the basis of the auxiliary request as filed on 13 December 1995.

The Respondent requested that the appeal be dismissed.

## **Reasons for the Decision**

### *Admissibility of the appeal*

1. The appeal is admissible.

### *Priority and novelty*

2. According to Article 54(2) EPC, the state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application. Additionally, the content of European patent applications as filed, of which the dates of filing are prior to the date referred to in paragraph 2 and which were published on

or after that date, shall be considered as comprised in the state of the art (Article 54(3) EPC) in so far as a Contracting State designated in respect of the later application, was also designated in the earlier application as published (Article 54(4) EPC).

- 2.1 In the present case, NL-A-8601159 was filed in the Netherlands on 6 May 1986 and published on 1 December 1987, which is after the filing date of the patent in suit. It is a national and not a European patent application, so that it is not part of the state of the art pursuant to Article 54(2) and 54(3) EPC; the parties did not dispute this. Since it is not part of the state of the art, the document as such cannot be taken into account for the assessment of novelty (see also decision T 550/88, OJ EPO 1992, 117).
- 2.2 The national patent application formed the basis of D1, which was filed on 28 April 1987, invoking the priority from that earlier application in the Netherlands, and published on 9 December 1987. In view of the designated states which D1 has in common with the patent in suit, it is part of the state of the art pursuant to Article 54(3) and (4) EPC. None of the parties disputed that conclusion either.
- 2.3 The discussion arose from the fact that the priority document and D1 were not exactly the same and in fact differed on major points. In particular, D1P discloses fibres entirely or substantially consisting of a blend of aromatic polyamides, characterized in that the blend is composed of poly-p-phenylene terephthalamide (PPDT) and a copolyamide derived from p-phenylene diamine, terephthalic acid and 2,6-naphthalene dicarboxylic acid



(Claim 1), whereas D1 refers to fibres entirely or substantially consisting of a blend of p-phenylene terephthalamide and another aromatic polyamide, characterized in that the other copolyamide is derived from p-phenylene diamine, terephthalic acid and at least one other monomer selected from naphthalene dicarboxylic acids and naphthalene diamines having the acid and amine groups separated by at least two substitutable carbon atoms in the naphthalene nucleus (Claim 1). The documents thus differ in that the p-phenylene terephthalamide in the priority document is blended with one specific copolyamide which corresponds to the one mentioned in present Claim 1, whereas according to D1 the p-phenylene terephthalamide can be blended with a variety of copolyamides, one of which is the copolyamide used in present Claim 1 (D1, page 2, lines 32 to 33).

2.4 A major source of dispute between the parties was, how to deal with the different disclosures of D1 and D1P.

2.4.1 The Respondent proposed two possibilities:

- (i) to compare the claimed subject-matter directly with D1P, or
- (ii) to compare the claimed subject matter with those parts of D1 which were supported by the priority document, which required a precise comparison of the two documents and deletion from D1 of all of those parts that were not present in D1P; during the oral proceedings the Respondent in fact filed such an adapted version of D1.

2.4.2 The Appellant argued that the only correct way to deal with the different documents was to compare the present claims with D1. Only if any part of D1 would be novelty destroying for the patent in suit, its entitlement to priority should be checked.

2.4.3 Regarding the first of the Respondent's options, as pointed out above (point 2.1), D1P is not part of the state of the art and hence its contents, whether novelty destroying or not, cannot be taken into account for the assessment of novelty. In addition, that proposal would include the possibility that subject-matter present in D1P but not in D1 would also be considered. The first of the Respondent's options can therefore not be accepted.

The second option differs from the first one in that any subject-matter present in D1P but not in D1, would also not be present in the adapted version of D1, so that, by simply deleting the added subject-matter, an altogether changed disclosure may be created, which would have no basis either in the priority document or in the corresponding patent application. In the case that the priority document contains no subject-matter which was not also present in the corresponding application, the deletion would amount to returning to the priority document, which, as pointed out above, is not acceptable.

Therefore, the Board cannot adopt either of the two options proposed by the Respondent.

2.4.4 Whereas D1P does not belong to the state of the art, D1 does (see points 2.2 and 2.3 above). Therefore, the

approach of starting from that document when assessing the novelty of the patent in suit, is correct.

3. D1 discloses fibres made out of a mixture of poly-p-phenylene terephthalamide and another aromatic polyamide, which is derived from p-phenylene diamine, terephthalic acid and at least one other monomer selected from naphthalene dicarboxylic acids and naphthalene diamines.

- 3.1 The critical features of these blends, whereby the properties of the fibres may be optimized, are the relative amount of the two aromatic polyamides and the amount of naphthalene units in the copolyamide (page 3, lines 2 to 4). There are five possible structures for both the diamines and the dicarboxylic acids, of which the 1,5- and 2,6-naphthalene diacids and diamines are preferred (page 2, lines 32 and 33). In the examples, copolyamides are prepared with either 2,6-naphthalene dicarboxylic acid chloride (Example b.(i)) or with 1,5-naphthalene diamine (Example (ii)). Filaments spun out of the compositions according to D1 as well as comparative compositions are specified in Examples 1 to 38, of which Examples 31 and 32 describe filaments of an unblended copolyamide containing 7,5 mol.% 2,6-naphthalene units. However, the contents of these examples were not present in the priority document, so that their disclosure cannot be taken into account. Apart from a number of control experiments with a composition containing the homopolyamide PPDT, all of the other examples describe filaments of blends of one of the two above-described copolyamides with PPDT.

Thus, whilst it is clear that the subject-matter of D1

which is entitled to its priority date concerns fibres made out of a mixture of aromatic copolyamides, the patent in suit refers to fibres made essentially out of one specific aromatic copolyamide.

3.2 For the alleged disclosure of such a fibre in D1, the Respondent relied on the passage on page 2, lines 52: "For fibres prepared from the afore-mentioned copolyamide lower strength values are normally found." The term "the afore-mentioned copolyamide" obviously refers to the foregoing paragraphs, where the second copolyamide to be used in the blend is described in more detail. On page 2, lines 25 to 28 the copolyamide is defined in the same wording as in Claim 1. In lines 29 to 31 it is explained what is meant by "substitutable carbon atoms". The description then goes on to state that there are five possible structures for both the diacids and the diamines (lines 32 to 34) and continues with: "The copolymer is normally prepared...." (lines 34 to 35). According to lines 36 to 39, "the use of said copolyamide results in a blend leading to fibres having the envisaged properties" and lines 40 to 49 explain that "the copolyamide to be blended with the PPDT" should contain at least 1.5% by weight of naphthalene units and that the amount of copolyamide, which is to be prepared separately, should be blended in the smallest possible quantity with PPDT. From lines 50 to 51 it can be learned that fibres of PPDT have a certain strength, after which the above-cited passage follows.

3.3 From the several references to a blend in the above passages as well as from the indication that fibres prepared from poly-p-phenylene terephthalamide and from

the copolyamide have different properties, it is clear that the term "the copolyamide" refers to the polymer to be blended with PPDT. Since that copolyamide can have a number of different structures (five for both the diacids and the diamines; page 2, line 32), with a preference for 1,5- and 2,6-naphthalene diamines and diacids (page 2, lines 32 to 33), the passage under discussion cannot be interpreted as referring to fibres essentially made out of the specific copoly(p-phenylene terephthalamide/2,6-naphthalamide), and even less so to copolyamides containing the precise mole fraction of 2,6-naphthalamide as required in Claim 1 of the patent in suit. A combination with the mole fractions of the copolyamides used in the examples is not permitted as the examples describe fibres of blends only. There is no disclosure of any mole fraction to be used in fibres essentially made of the unblended naphthalene units containing copolyamide.

- 3.4 For the above reasons, the Board concludes that D1 is not detrimental to the novelty of the claimed subject-matter.
4. Since the subject-matter of Claim 1 is novel over D1 and Claims 2 to 8 relate to further embodiments of and methods for preparing the fibre according to Claim 1, their novelty is supported by that of Claim 1.
5. As the claimed subject-matter according to the Respondent's main request is novel over D1, there is no need to consider the auxiliary request.

6. The Opposition Division revoked the patent solely on the ground of lack of novelty. It did not consider the issue of inventive step in the light of the other documents on file. In order not to deprive any of the parties of the possibility to be heard by two instances, the Board makes use of its power under Article 111(1) EPC and refers the case back for further prosecution.

## **Order**

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

1. The decision under appeal is set aside.
2. The case is remitted to the Opposition Division for further prosecution on the basis of the main request.

The Registrar:

The Chairman:

E. Görgmaier

C. Gérardin