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Datasheet for the decision of 1 April 2022

Case Number: T 1533/19 - 3.3.03

Application Number: 04794099.4

Publication Number: 1668074

IPC: C08K5/5313

Language of the proceedings: EN

Title of invention:
FLAME RESISTANT AROMATIC POLYAMIDE RESIN COMPOSITION AND ARTICLES THEREFROM

Patent Proprietor:
E. I. du Pont de Nemours and Company

Opponents:
Clariant Plastics & Coatings GmbH
RHODIA OPERATIONS

Relevant legal provisions:
EPC Art. 56, 54, 111(1)
RPBA 2020 Art. 11

Keyword:
Novelty (yes)
Inventive step - selection of the closest prior art based on ex post facto analysis
Remittal - special reasons for remittal

Decisions cited:
G 0003/89, G 0011/91, G 0001/03, G 0002/10, T 0332/87

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Case Number: T 1533/19 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 1 April 2022

Appellant: (Patent Proprietor)	E. I. du Pont de Nemours and Company Chestnut Run Plaza 974 Center Road P.O. Box 2915 Wilmington, DE 19805 (US)
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Representative:	Mikulecky, Klaus Clariant Produkte (Deutschland) GmbH Patent & License Management Chemicals Industriepark Höchst, G 860 65926 Frankfurt am Main (DE)
Respondent 2: (Opponent 2)	RHODIA OPERATIONS 25 rue de Clichy 75009 Paris (FR)
Representative:	Scholz, Volker Boehmert & Boehmert Anwaltspartnerschaft mbB Pettenkoferstrasse 22 80336 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 18 March 2019**

revoking European patent No. 1668074 pursuant to Article 101(3)(b) EPC.

Composition of the Board:

Chairman	D. Semino
Members:	F. Rousseau
	W. Ungler

Summary of Facts and Submissions

I. The appeal concerns the decision of the opposition division posted on 18 March 2019 revoking European patent No. 1 668 074 which claims priority from US application 60/508,506.

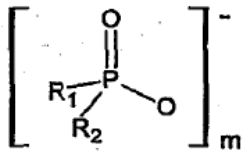
II. Notices of opposition to the patent were filed by opponent 1 on the grounds of lack of novelty and lack of an inventive step and by opponent 2 on the grounds of extension of subject-matter beyond the content of the application as filed and lack of an inventive step.

III. The decision was based on the patent as granted as a main request, auxiliary requests 1 to 5 filed with letter of 6 November 2017 and auxiliary Requests 6 to 35 filed with letter of 13 December 2018.

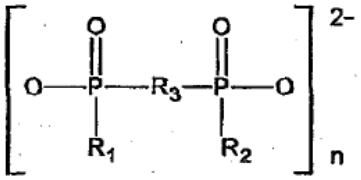
IV. Claim 1 of the patent as granted read as follows:

"1. A flame retardant polyamide resin composition, comprising:

(a) about 20 to about 90 weight percent of an aromatic polyamide that is derived from about 5 to about 75 mole percent of aromatic monomers;
(b) about 10 to about 40 weight percent of a flame retardant comprising a phosphinate of the formula (I) and and/or a disphosphinate of the formula (II) and/or polymers of these



(I)



(II)

wherein R_1 and R_2 are identical or different and are C_1-C_6 alkyl, linear or branched, and/or aryl; R_3 is C_1-C_{10}-alkylene, linear or branched, C_6-C_{10}-arylene, -alkylarylene or -arylalkylene; M is calcium ions, magnesium ions, aluminum ions and/or zinc ions, m is 2 to 3; n is 1 or 3; x is 1 or 2; and

(c) 0 to about 60 weight percent of inorganic reinforcing agent and/or filler;

(d) 0.5 to 8 weight percent of at least one synergist selected from the group consisting of aluminum oxide, iron oxide, titanium oxide, manganese oxide, magnesium oxide, zirconium oxide, molybdenum oxide, cobalt oxide, bismuth oxide, chromium oxide, tin oxide, antimony oxide, nickel oxide, copper oxide, tungsten oxide, aluminum powder, iron powder, titanium powder, manganese powder, molybdenum powder, cobalt powder, bismuth powder, chromium powder, tin powder, antimony powder, nickel powder, copper powder, tungsten powder, barium metaborate, and boehmite, the above stated percentages being based on the total weight of the composition."

V. The wording of the auxiliary requests is not relevant for the present decision.

VI. The decision was taken having regard to the following documentary evidence:

D1: EP 1 024 167 A1
D4: DE 198 20 398 A1
D7: WO 2004/022640 A1
D8: DE 199 20 276 A1
D11: US 4,036,811
D15: Technical Report
D16: G.W. Becker, D. Braun, Polyamide, Kunststoff Handbuch 3/4, L. Bottenbruch und R. Binsack (Eds.), Hanser Verlag, 1998, pp. 803-809
D17: Melvin I. Kohan, Nylon Plastics Handbook, Hanser Verlag, 1995, pp. 592-599 and
D18: Melvin I. Kohan, Nylon Plastics Handbook, Hanser Verlag, 1995, pp. 343-348.

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

(a) D4, D16, D17 and D18 were not admitted into the proceedings, D4 because its relevance had not been properly argued in the notice of opposition of opponent 1, and D16, D17 and D18 because they were *"not relevant to the decision to be taken*".

(b) The patent as granted did not extend beyond the content of the application as filed.

(c) A combination of the compositions of examples B1, B4 and B6 exemplified in table 2 of D7 with the aromatic polyamides of D8 was not directly and unambiguously disclosed in D7. Even though the skilled person could replace the preferred aliphatic polyamides of D7, as used in said compositions, with less preferred aromatic

polyamides, also mentioned in D7 by reference to D8, nothing in D7 implied or even suggested that the amounts of synergist and flame retardant used in examples B1, B4 and B6 had to remain the same. Accordingly, the objection by opponent 1 that compositions in accordance with the patent in suit were disclosed when reading said examples in the light of the reference to D8 mentioning the use of aromatic polyamides did not convince.

(d) Novelty over D1 was also acknowledged, since D1 did not disclose aromatic polyamides.

(e) The application from which the patent-in-suit claimed priority did not describe either the range of 0.5 to 8 wt.-% of synergist or the use of certain compounds, such as boehmite in particular, as synergists. The patent was therefore not entitled to its priority claim with the consequence that D7 and D14, both published in the priority interval, formed part of the prior art citable under Article 56 EPC.

(f) Regarding inventive step, the patentee had argued that D11 was too old to bear any technical significance at the time the claimed invention had been accomplished, since it did not concern flame retardant properties measured according to the UL-94 test, but the outdated and less demanding test method ATM D 635-68, and in addition, since it did not relate to the secondary aims of the patent in suit, such as good stability of the composition upon processing. However, in the opposition division's opinion, D11 addressed problems similar to those underlying the patent in suit, i.e. providing flame retardant aromatic polyamide

compositions which could be processed without adversely affecting the matrix resin during processing and found application in the manufacture of construction pieces for electrical apparatuses. The closest prior art was thus a flame retardant composition of an aromatic polyamide, such as that of Example 5 in D11.

D7 could not, contrary to the patentee's opinion, represent the closest prior art, since it did not specifically relate to flame retardant aromatic polyamide compositions.

The subject-matter of the patent as granted differed from the closest prior art only in that the compositions also comprised specific amounts of certain synergists as specified in its claim 1.

Even if the problem of providing compositions of aromatic polyamides exhibiting improved flame retardance might not be necessarily solved over the full scope of claim 1, one could acknowledge that this was the case as far as compositions of aromatic polyamide comprising glass fibre and boehmite were concerned.

The addition of boehmite to the composition of the closest prior art to solve the more demanding problem of improving flame retardancy was obvious to the skilled person in the light of D7. The subject-matter of the main request lacked therefore an inventive step.

(g) The same conclusion applied to auxiliary requests 1 to 5 and auxiliary requests 6 to 35, the latter being admitted to the procedure.

VIII. An appeal against that decision was lodged by the patent proprietor (appellant).

IX. Following the filing of the appellant's statement of grounds of appeal, each of opponents 1 and 2 (respondents 1 and 2, respectively) filed a rejoinder.

X. In preparation of the oral proceedings the Board issued a communication dated 15 February 2021, sent in advance per e-mail, in which the Board indicated that it was minded in view of the preliminary analysis of the case provided in said communication to allow the appeal and to remit the case to the opposition division for further prosecution.

XI. With letters of 11 February 2022, 25 February 2022 and 2 March 2022, respondent 1, respondent 2 and the appellant, respectively, withdrew their requests for oral proceedings on the condition that the Board would maintain its preliminary opinion.

XII. The oral proceedings were thereafter cancelled by the Board as not deemed necessary.

XIII. The appellant's submissions, in so far as they are pertinent to the present decision, may be derived from the reasons for the decision below. They are essentially as follows:

(a) Inventive step was to be analysed starting from document D7, in which case an inventive step had to be acknowledged.

(b) The selection of the outdated document D11, rather than the more recent document D7, as the closest prior art was based on hindsight knowledge.

XIV. The submissions of the respondents, in so far as they are pertinent to the present decision, may be derived from the reasons for the decision below. They are essentially as follows:

(a) According to respondent 1, the sole replacement in examples B1, B4 and B6 of D7 of the specific aliphatic polyamine used therein by an aromatic polyamide such as those described in D8, which was cross-referenced in the general description of D7, resulted in a subject-matter in accordance with operative claim 1. Having regard to the rationale of decision T 332/87 granted claim 1 lacked therefore novelty.

(b) According to respondent 2, D11 was a reasonable starting point for assessing inventive step. Restriction to a single document as starting point for the analysis of inventive step was not provided by the EPC. Based on cited passages of sections I.D.3.1 and I.D.3.4.2 of the Case Law of the Boards of Appeal of the EPO, 9th Edition, 2019, the selection of D11 as closest prior art was entirely correct.

(c) Starting from D7 as the closest prior art the subject-matter of the granted patent was obvious to the skilled person.

XV. The appellant requested that the decision of the opposition division be set aside and the patent be maintained as granted (main request), in the alternative that the patent be maintained on the basis of the claims of Auxiliary Requests 1 to 35 (in that order) submitted with the statement setting out the

grounds of appeal (letter of 26 July 2019) and a description yet to be correspondingly adapted.

XVI. The respondents requested that the appeal be dismissed.

Reasons for the Decision

Main request - novelty of claim 1 over D7

1. The objection raised by respondent 1 is based on the rationale of T 332/87 to which opponent 1 expressly referred. It is submitted that the disclosure of a patent document has to be considered as a whole, including the combination of examples with features of its general description.

1.1 While the approach taken in decision T 332/87 was more restrictive than it appears to be argued by respondent 1, as this decision imposed as an additional condition that the example of the prior art document has to be representative for the general technical teaching of said document, which point was not addressed by respondent 1, it is nevertheless to be stressed that this decision is anterior to the opinion and decision of the Enlarged Board of Appeal defining the concept of disclosure (opinion G 3/89 and decision G 11/91 (OJ EPO 1993, 117 and 125)), which concept was reaffirmed in G 2/10 (OJ EPO 2012, 376).

According to this concept, and as already pointed out in T 332/87, the disclosure of a document has to be determined in view of that document as a whole. It is limited to what a skilled person would derive directly and unambiguously, using common general knowledge, and

seen objectively and relative to the relevant date, from said whole document. This concept is the same for the purposes of Articles 54, 87 and 123 EPC, as outlined in decisions of the Enlarged Board of Appeal G 1/03 (OJ EPO 2004, 413, point 2.2.2 of the Reasons) and G 2/10 (point 4.6 of the Reasons). It is therefore a general and consistently applied principle of the Boards of Appeal that for denying novelty there must be a direct and unambiguous disclosure in the state of the art which inevitably leads the skilled person to a subject-matter falling within the scope of what is claimed.

1.2 Concerning the case at hand, it was not shown that the skilled person would derive from examples B1, B4 and B6 of D7 more than the bare disclosure of the combination of specific components described therein. No indication - even implicit - is provided in that document that the preparation of these examples should be repeated replacing the specific aliphatic polyamide used therein by another polyamide such as those described in D8, even if this document is cross-referenced at page 11, lines 29-30 of D7. There is therefore no reason to read examples B1, B4 and B6 of D7 in the light of the teaching of D8 and select from the general teaching of the latter specific aromatic polyamides, as submitted by respondent 1. In the Board's view arriving at the reading of D7 made by respondent 1 could only be done with inadmissible hindsight knowledge of the patent in suit.

1.3 On that basis, in agreement with the contested decision, novelty over D7 is acknowledged.

Main request - Inventive step

Closest prior art

2. According to the case law (Case Law, *supra*, I.D.3.2) ideally the closest prior art should be a document that mentions the purpose or objective indicated in the patent in suit as a goal worth achieving. The aim thereof is that the assessment process should start from a situation as close as possible in reality to that encountered by the inventor, avoiding *ex post facto* considerations.

Purpose of the invention

3. The appellant submits that the "*purpose or object of the present invention can be defined as providing polyamide compositions which exhibit (1) excellent flame retardance (meeting the requirements of the standard UL-94) and (2) a good heat stability in molding and attendant excellent moldability*", reference being made to paragraph [0005] of the specification.

3.1 It can be taken from paragraph [0002] and [0003] of the specification that it was required for certain applications of polyamide resins to meet the UL-94 standard for a high degree of flame retardance, but that some known flame retardant additives such as halogenated flame retardants or non-halogenated flame retardants such as phosphate or phosphinate compounds with triazine derivatives, tended to decompose or degrade at the high temperatures required to melt polyamide resins. This, depending on the flame retardant used, posed problems with corrosion in compounding extruders and moulding machines, surface appearance of moulded articles or worsening of

electrical properties of compounded polyamide resins, the latter meaning, having regard to the well-known use of polyamides for their insulation properties and as confirmed by the objectives of the invention defined in paragraph [0005], a worsening of their insulation properties.

According to paragraphs [0004] and [0005] of the specification, it was therefore an object of the present invention to provide a flame resistant polyamide resin composition capable of yielding articles that possess excellent flame retardance meeting UL-94 standards for flame retardancy, good physical properties and good electrical insulation properties even under conditions of high humidity.

3.2 It is also stated in paragraph [0005] of the specification that "*a feature of the present flame resistant polyamide resin compositions is their good heat stability in molding and attendant excellent moldability*".

The use of high temperatures required to melt the polyamide resins for its compounding or producing articles made with said compounded resins is also apparent from the experimental part of the contested patent (paragraph [0023] and [0024]) describing compounding in an extruder with barrel temperatures about 325°C and moulding with a melt temperature of 290°C, in line with paragraphs [0020] and [0021] which generally refer to melt-blending for preparing the claimed composition and injection moulding for producing articles with said composition.

Therefore, it can be understood that an essential objective of the present invention was also that the

flame retardant composition withstood high temperatures necessitated not only for the compounding of the claimed composition in the the molten state, but also for the production of articles by moulding.

3.3 Accordingly, the purpose or object of the present invention as summarized by the appellant in the statement of grounds of appeal is a fair description of what is indicated in the specification.

Teaching of D11 and subsequent technological developments

4. It is undisputed that D11 which was published in 1977 is also concerned with improving flame retardancy of polyamides using flame retarding compounds (claim 1). It is also undisputed that Example 5 of this document selected as closest prior in the contested decision concerns the use of a polyamide and a flame retardant corresponding to structural features (a) and (b) of claim 1 of the patent in suit, respectively. A more detailed analysis of the disclosure of D11 is given in points 7.2 to 7.5 below.

Having regard to the background art indicated both in the patent in suit (paragraphs [0003] and [0004]) and in D7 (passage on page 2, third paragraph to page 3, second paragraph), filed in 2003, it appears however that the research concerning flame retardancy of polyamides using disphosphinate salts of the type used in Example 5 of D11 had not ground to a halt after the publication of D11, but had resulted over the years in improvements of said flame retardant additives for their use in polyamides.

Background art mentioned in D7 - object of D7

4.1 In the third paragraph of its page 2 D7 refers to "DE-A-2 447 727", a German family patent of D11 as outlined by the appellant, which passage states that salts of phosphinic acids have proven to be effective flame-retardant additives.

The next paragraph on page 2 of D7 mentions the additional use of synergistic combinations of phosphinates with certain nitrogen-containing compounds which have been found to be more effective as flame retardants in a variety of polymers than the phosphinates alone, reference being made to a PCT application of 1997.

According to the first paragraph on page 3 of D7, phosphorus-containing flame retardants in polyamides were not satisfactory in view of discoloration and molecular weight reduction occurring during processing of the polyamides.

The next paragraph also refers to phosphinates in conjunction with nitrogen synergists in polyamides. The same paragraph also refers to phosphinates in combination with melamine polyphosphate as flame retardants for polyamides. According to that passage, these newly developed, very effective flame retardants could however lead to partial polymer degradation and discoloration of the polymer, especially at processing temperatures above 300 °C, smoke development being sometimes observed during extrusion and injection moulding.

4.2 According to the third paragraph on page 3 of D7, it was therefore an object of D7 to provide flame

retardant combinations for thermoplastics available that exert a stabilizing effect on the plastic in addition to the flame retardancy. According to page 5, lines 11-14, the invention of D7 reduced the discoloration of the plastics during melt processing and suppressed its degradation, while fully preserving its flame retardance.

4.3 The developments concerning flame retardancy of polyamides in relation to phosphonates additives, as pictured in D7, is also illustrated by comparative examples V1, V2 and V4 and examples B1 to B6 of that document (tables 1 and 2 on page 16 and page 15, lines 1-11), which concern the compounding of a glass fiber containing Polyamide 6.6 with phosphonates flame retardant additives on a twin-screw extruder at temperatures of 260 to 310 °C, followed by a granulation step and an injection moulding step at a mass temperature of 270 to 320 °C (page 13, lines 19-28).

D7 as closest prior art

5. In view of the above, the Board agrees with the appellant that the goals of D7 are very close to those defined in paragraph [0005] of the patent in suit. As argued by the appellant, the composition described with example B4 in table 2 of D7 is also structurally close to those defined in claim 1 of the patent in suit. That composition is seen by both respondents to represent a reasonable starting point for the assessment of inventive step of the subject-matter of the patent in suit (rejoinder of respondent 1, point 1.3; page 5 of letter of 29 March 2018 of respondent 2 filed before the opposition division, to which it is expressly referred to in point 2.3 of respondent 2's rejoinder).

D11 as closest prior art in addition to D7?

6. The Board's position is that the skilled person with a prospect of achieving the goals addressed in the patent in suit would need a valid reason to return to the teaching of D11 and disregard the evolution in technology in the present field over the past twenty seven years, i.e. since the publication of D11, which evolution of technology is illustrated by the teaching of D7 and the background art depicted in both that document and the patent in suit.

Although as a matter of principle there is no prohibition to disregard evolution in technology and come back to an older state of the art when selecting the starting point for assessing inventive step, a decision concerning which starting point is appropriate to analyse inventive step requires in such a case to carefully consider both the goals addressed in the patent under examination and the disclosure of said older state of the art, in the present case D11.

For a realistic and objective approach, inventive step has be considered from the skilled person's perspective at the date of filing of the patent in suit taking into account realistic goals to be achieved for the subject-matter claimed as they appear from the application documents as a whole. Faced with said goals, the notional skilled person would have the natural tendency to consider recent development in the technology of concern, unless said goals or some of them had already been addressed in a more ancient prior art, in which case said older prior art has also to be considered for an assessment of inventive step, since a claimed invention must be shown to be inventive in the light of the prior art as a whole.

Analysis of the goals addressed in D11 and D7

7. According to the opposition division D11 would be similar to the patent in suit in terms of the problems it addresses, namely the provision of flame retardant aromatic polyamide compositions that can be processed without adversely affecting the matrix resin during processing, and that find application in the manufacture of construction pieces for electrical apparatuses, reference being made to column 1, lines 47-48, column 3, lines 59-63 and column 4, lines 13-16 of D11 (page 7, second full paragraph of the decision).

7.1 However, as already indicated in above point 3.1, paragraph [0005] of the opposed patent defines the object of the present invention in more general terms, namely as "to provide a flame resistant polyamide resin composition", the selection of aromatic resins as defined in granted claim 1 representing part of the solution to that problem. The argument by respondent 2 that paragraph [0001] of the opposed patent leaves no doubt that the alleged invention is concerned with aromatic polyamide compositions, is undisputed. Paragraph [0001] of the patent in suit, however, does not concern the objective initially set out by the patentee, but the claimed invention which includes as feature the solution alleged to achieve that objective, i.e. the choice of a particular class of aromatic polyamides to be mixed with a specific flame retardant and a specific synergist.

7.2 Moreover, as is apparent in view of the appellant's submissions in the third paragraph at page 10 of the statement of grounds of appeal, Example 5 of D11 does not concern melt blending, but the incorporation of the flame retardant additive into the starting

polycondensation batch comprising the dicarboxylic acids and diamines used for forming the polyamides. Furthermore, as pointed out by the appellant (statement of grounds of appeal, page 7, third paragraph) the polyamide prepared in Example 5 of D11 is processed thereafter at a temperature of 235°C by compression moulding, but not at much higher temperatures, such as temperatures around 300°C or more as addressed in the patent in suit and in D7.

7.3 Respondent 2 argues that D11 requires the mandatory use of aromatic monomers, reference being made to column 2, lines 39-48 and 55-59. This, however, is not correct having regard to the introductory wording "*The polyamides are derived for example from*" immediately preceding the above passage of D11 cited by respondent 2. As pointed out by the appellant, D11 describes that polyamides used are above all amorphous polyamides (column 2, lines 29-32) which are derived for example from diamines components for which a list of exemplified diamines including non aromatic diamines is given. In other words the polyamides to be used in D11 are not described to necessarily comprise an aromatic component. This is in agreement with claim 1 of D11 that does not comprise any restriction concerning the nature of the polyamide.

7.4 As to the mode of addition of the flame retardant additives described in D11, there is no dispute that those are not necessarily added to the starting polycondensation batch, as is done in all examples of D11, but that they can be added to the finished polyamide, as well as any time during the polycondensation (column 3, lines 37-40). D11 also describes in the following lines that in case of adding the phosphinic acid salts to a finished polyamide, they

are advantageously mixed with the granulated polyamide, and this mixture is either processed directly, for example on an injection moulding machine, or first molten in an extruder, granulated and then processed after drying. However, D11 does no contain any disclosure (within the meaning indicated in above point 1.1) to process in the melt a flame retardant additive of D11 with a polyamide having a melting point which necessitates operating temperatures as high as those mentioned in the patent in suit. In the Board's opinion, arriving at such conclusion could only be the result of hindsight knowledge of the patent in suit.

Accordingly, contrary to the position of respondent 2 and the opposition division the indication in column 3, lines 59-65 of D11 that "*the phosphorus compounds contained in the flame retarding polyamide molding compositions of the invention are thermostable and do not adversely affect the polyamides either during their preparation or during their processing*" has no bearing on the selection of the closest prior art, since D11 has not been shown to concern processing temperatures as those addressed in the patent in suit, contrary to D7.

7.5 Moreover, as argued by the appellant, the flame retardance is tested in D11 according to ASTM D 635-68, whereas the Examples B1 to B6 of D7 achieve a V-O rating according to the much more recent and stricter UL-94 standard. As argued by the appellant, this also constitutes an additional reason to rather start from the teaching of D7.

7.6 As to the use of the moulded polyamide compositions for the manufacture of electrical appliances addressed in the contested decision, this corresponds to one of the

conventional uses of polyamide resins, which means that the skilled person would also *a priori* consider the compositions of D7 for that use. Moreover, the good electrical insulation properties even under conditions of high humidity defined as a goal to be achieved in paragraph [0005] of the contested patent would be understood by the skilled person to implicitly refer to the need to improve stability of polyamide compositions comprising non-halogenated flame retardants such as phosphate or phosphinate compounds with triazine, since paragraph [0003] describes that these compounds "*are unstable at high temperatures and can decompose or degrade during molding, leading to detrimental effects on the electrical properties of a compounded polyamide resin composition containing these flame retardants, especially under conditions of high humidity*". Accordingly, the need to achieve good electrical insulation properties even under conditions of high humidity would lead the skilled person to start from a prior art dealing with improvement of stability of these compounds during moulding at high temperature.

Conclusion

8. Having regard to the goals set out in the patent in suit, i.e. to provide polyamide compositions which exhibit (1) excellent flame retardance meeting the requirements of the standard UL-94 and (2) a good heat stability in moulding, especially at temperatures around 300°C, the skilled person would be prone to start from the teaching of D7, in particular from the composition of its example B4 in table 2, which as shown in above points 4.2 and 4.3 addresses the same goals.

Moreover, the skilled person with a prospect of achieving these goals would have no reason to ignore the development of technology in respect of flame retardancy on which D7 is based and start from the twenty seven years older document D11, which concerns a less strict standard for flame retardancy and does not deal even implicitly with the moulding of polyamides under the demanding temperature conditions used in the patent in suit.

9. Respondent 2 recited two passages of sections I.D.3.1 and I.D.3.4.2 of the Case Law in order to argue why the choice of D11 as the closest prior art would be appropriate (rejoinder, section 2.1, pages 3 and 4). Respondent 2, however, did not go beyond reciting excerpts of said sections. The context of the decisions mentioned in said sections was not addressed, let alone any reference to relevant passages thereof indicated. On that basis and to the Board's knowledge there is no reason to consider that the passages of the Case Law referred to by respondent 2 are pertinent to the case at hand or that the approach followed in the present decision would diverge from previous case law.

10. Under these circumstances Example 5 of D11, whose choice as closest prior art mainly relies on the similarity of structural features of that example with operative claim 1 as far as features (a) and (b) are concerned, does not constitute a realistic starting point for the present invention. On that basis, the reasoning on inventive step starting from Example 5 of D11 as the closest prior art which led to the revocation of the patent in suit and which was pursued by respondent 2 cannot convince as it lacks the required objectivity. The same reasoning also applies

to Example 3 of D11 which is also proposed as possible closest prior art by respondent 2.

Remittal

11. Respondent 1 (rejoinder, point 1.3) and respondent 2 (rejoinder, point 2.3) also object that the subject-matter of the opposed patent is obvious over D7 taken as the closest prior art, whereas all parties agree that Example B4 of that document represents a suitable starting point for assessing inventive step. The various issues necessitated for an analysis of inventive step starting from D7 as the closest prior art, among others the assessment of the objective problem solved in the light of experimental report D15 and the obviousness of the solution, in particular in the light of D16, D17 and D18 (see pages 6 to 8 of letter of 29 March 2018 of respondent 2, to which it is expressly referred to in point 2.3 of respondent 2's rejoinder), were however not dealt with in the contested decision, nor were those issues discussed during the oral proceedings. This is confirmed by the fact that, since inventive step starting from D7 was not part of the decision, documents D16 to D18 were not admitted for the single reason that they were not relevant to the decision (point 3 of the reasons, last sentence). This situation is seen by the Board to constitute "special reasons" within the meaning of Article 11 RPBA 2020 to remit the case for further prosecution to the department whose decision was appealed.

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

13. D16 to D18 are excerpts of handbooks representing the general technical knowledge in the field of polyamides which were not admitted into the proceedings by the opposition division, despite being submitted more than 10 months before the oral proceedings with letter of 29 March 2018, apparently in direct response to experimental report D15 filed by the patentee with letter of 6 November 2017.

The Board notes that their non-admittance has not been decided during the oral proceedings. The minutes do not mention any decision, let alone any debate in this respect. This is consistent with the reasons provided for their non-admittance, i.e. because they "were not relevant to the decision to be taken", namely revocation of the patent based on a lack of inventive step over Example 5 of D11 as closest prior art. This, communicated to the parties in the communication sent in preparation of the oral proceedings, was not disputed.

On that basis the decision of the opposition division concerning the non-admittance of D16 to D18 is set aside and will need to be re-evaluated.

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.

The Registrar: The Chairman:

B. ter Heijden D. Semino

Decision electronically authenticated