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**Datasheet for the decision  
of 21 September 2022**

**Case Number:** T 1750/19 - 3.3.07

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**Language of the proceedings:** EN

**Title of invention:**

BIODEGRADABLE POLYURETHANE AND POLYURETHANE UREAS

**Patent Proprietor:**

Polynovo Biomaterials Pty Limited

**Opponent:**

Dannenberger, Oliver Andre

**Headword:**

Biodegradable polyurethane/POLYNOVO

**Relevant legal provisions:**

EPC Art. 84, 56

EPC R. 103

RPBA Art. 12(4)

**Keyword:**

Claims - lack of clarity no ground for opposition

Inventive step - non-obvious alternative

Late-filed facts - new objections could have been filed in  
opposition proceedings (yes)

Reimbursement of appeal fee - substantial procedural violation  
(no)

**Decisions cited:**

G 0007/93, G 0003/14, T 0910/02, T 0663/10, T 0671/12,

T 1742/12, T 0166/17



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Case Number: T 1750/19 - 3.3.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.07**  
**of 21 September 2022**

**Appellant:** Dannenberger, Oliver Andre  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
8 April 2019 concerning maintenance of the  
European Patent No. 1729783 in amended form**

**Composition of the Board:**

**Chairman** A. Usuelli  
**Members:** J. Molina de Alba  
L. Bühler

## Summary of Facts and Submissions

- I. The opponent (appellant) filed an appeal against the opposition division's interlocutory decision that European patent No. 1 729 783 as amended in the version of auxiliary request 5 filed at the oral proceedings of 12 February 2019, and the invention to which it relates, met the requirements of the EPC.

The independent claims of the request held allowable by the opposition division read as follows.

*"1. A biocompatible biodegradable thermoplastic polyurethane or polyurethane/urea comprising isocyanate, polyol, and a chain extender having a hydrolysable ester linking group, wherein said chain extender having said hydrolysable ester linking group is a compound having molecular weight of less than 350 selected from the group consisting of diols, and wherein said polyol is selected from the group consisting of polyglycolic acid, poly(lactic acid) diol, poly( $\epsilon$ -caprolactone) diol and polyethylene glycol, and wherein said chain extender having a hydrolysable ester linking group is selected from the group consisting of glycolic acid-ethylene glycol dimer, lactic acid-ethylene glycol dimer, and trimers including a combination of lactic acid and/or glycolic acid and ethylene glycol."*

*"5. A biocompatible biodegradable polymeric scaffold comprising a cured polyurethane or polyurethane/urea according to any one of claims 1-4."*

"12. A use of polyurethanes or polyurethane/ureas according to any one of claims 1-4 in rapid prototyping techniques such as fused deposition modelling."

II. The following documents are referred to in this decision:

D1 WO 2004/009227  
D4 EP 0 634 432  
D6 US 2002/0035231  
D7 Declaration by T.G. Moore dated 18 December 2019  
D8 Excerpt from G. Oertel, "Polyurethane" in  
Kunststoff Handbuch, Vol.7, 3rd edition, 1993,  
chapter 3.4.3, page 111

III. The patent had been opposed on the grounds that its subject-matter lacked novelty and inventive step, was insufficiently disclosed and extended beyond the content of the application as filed (Article 100(a), (b) and (c) EPC).

IV. In the decision under appeal, the opposition division, among other things, admitted auxiliary request 5 and concluded that this claim request complied with Articles 84, 54 and 56 EPC. On sufficiency of disclosure, the opposition division noted (point 2.8.5) that the opponent had not raised any objection to auxiliary request 5 and that "*for the reasons given in the summons*" the requirements of Article 83 EPC were also met.

V. In the statement of grounds of appeal, the appellant requested, among other things, that the opposition division's decision be set aside and that the patent be revoked in its entirety.

- VI. In its reply to the statement of grounds of appeal, the patent proprietor (respondent) requested that the appeal be dismissed, implying that the patent was to be maintained in the version allowed by the opposition division (main request). It also filed four sets of claims as auxiliary requests and document D7.
- VII. In a subsequent letter, the appellant filed document D8.
- VIII. The board scheduled oral proceedings, as requested by the parties.
- IX. By letter dated 1 February 2022, the appellant informed the board that it would neither participate in nor be represented at the scheduled oral proceedings.
- X. On 17 March 2022, the board issued a communication with its preliminary opinion.
- XI. The parties did not respond to the board's preliminary opinion. The board then cancelled the oral proceedings in a communication dated 5 August 2022.
- XII. The appellant's arguments that are relevant to this decision can be summarised as follows.

*Main request - clarity*

The definition of the feature "polyol" in claim 1 was unclear because it encompassed "polyglycolic acid", which was not a polyol. Similarly, the terms "dimer" and "including" in the definition of the chain extender introduced a lack of clarity. In addition, the feature "polo( $\epsilon$ -caprolactone)diol" in claim 4 was unclear.

*Admittance of document D7*

D7 was not to be admitted into the appeal proceedings because it could have been filed in the opposition proceedings. Moreover, the comparative tests in D7 were unsuitable for demonstrating that the polyurethane of claim 1 produced a technical effect over that in Example 2 of D4; the tests contained deficiencies and the tested polymers represented neither an example of the patent nor the polymer in Example 2 of D4.

*Main request - inventive step*

The polyurethane in claim 1 was not inventive starting from Example 2 of D4. The distinguishing feature was the chain extender. Neither the patent examples nor the comparative tests in D7 demonstrated that this difference rendered the polyurethane in claim 1 more biodegradable than that in Example 2 of D4. Therefore, the objective technical problem was to provide an alternative biocompatible, biodegradable, thermoplastic polyurethane.

In light of Example 17 of D1, the skilled person would have replaced the chain extender in Example 2 of D4 with the biodegradable diol lactic acid-ethylene glycol dimer. This was even more true considering the common general knowledge in D8 that low-molecular diols are chain extenders. Alternatively, the skilled person would have combined D4 with D6, which disclosed diol chain extenders with an ester function in Examples 1 and 2.

*Admittance of the objections under Article 123(2) and Article 83 EPC to the main request*

The main request was first filed as auxiliary request 5 at the oral proceedings before the opposition division. The appellant objected to its admittance because the claim request was unexpected and contained amendments taken from the description; however, the opposition division, allegedly exceeding the limits of its power of discretion, admitted the claim request. The appellant then requested that the oral proceedings be postponed to prepare its objections. As the opposition division rejected the request for postponement, the appellant did not have sufficient time to examine the new claim request in detail. Therefore, the board was to admit the grounds for opposition of Article 123(2) and Article 83 EPC raised against the former auxiliary request 5 with the statement of grounds of appeal.

*Reimbursement of the appeal fee*

The appeal fee had to be reimbursed because the opposition division had committed several procedural violations during the oral proceedings and because its decision was supported by insufficient reasons.

XIII. The respondent's arguments that are relevant to this decision can be summarised as follows.

*Main request - clarity*

The clarity objections raised by the appellant could not be examined pursuant to G 3/14. The objections were directed to features that were present in the granted



claims; the alleged lack of clarity did not arise from amendments made after grant.

*Admittance of D7*

D7 was to be admitted into the appeal proceedings because it had been filed as soon as it became necessary. The comparative tests in it were correct and demonstrated that the polyurethane in claim 1 was easier to degrade than that in Example 2 of D4.

*Admittance of D8*

D8 was not to be admitted into the appeal proceedings. It could have been filed in the opposition proceedings or, at the latest, with the statement of grounds of appeal.

*Main request - inventive step*

D4 was not a suitable starting point for the assessment of inventive step. If D4 was nevertheless considered as the closest prior art, the polyurethane in claim 1 differed in that its chain extender contained an ester group. This difference imparted biodegradability to the hard segments of the polyurethane since ester groups hydrolyse faster than carbon-carbon bonds or urethane bonds. This effect was disclosed in the patent (paragraphs [0048], [0004], [0008], [0022] and [0023]) and was demonstrated by the comparative examples in D7. Therefore, the objective technical problem was to provide a polymer having improved biodegradability.

The skilled person would not have consulted D1 to solve this problem because the teaching of D1 was in discrepancy with that of D4; the polymers in D1 were

thermoset while those in D4 were thermoplastic, i.e. the physical strength in D1 was achieved by cross-linking rather than by introducing hard segments (chain extenders). Example 17 of D1 did not teach the use of the lactic acid-ethylene glycol dimer as a chain extender but as a cross-linking agent in combination with polycaprolactone triol. D1 did not disclose that the dimer imparted biodegradability either.

*Admittance of the objections under Article 123(2) and Article 83 EPC to the main request*

The grounds of added subject-matter and sufficiency of disclosure raised by the appellant with the statement of grounds of appeal were not to be admitted into the appeal proceedings. These grounds cited against former auxiliary request 5 should have been raised in the opposition proceedings. At the oral proceedings, the opposition division explicitly asked the appellant whether it had any further comments on auxiliary request 5. It had none.

XIV. The parties' requests that were made during the written proceedings and are relevant for this decision are as follows.

The appellant requested:

- that the decision under appeal be set aside and that the patent be revoked,
- that document D7 not be admitted into the appeal proceedings and
- that the appeal fee be reimbursed.

The respondent requested:

- that the appeal be dismissed, implying that the patent be maintained in the version allowed by the opposition division (main request),
- that the objections under Article 123(2) and Article 83 EPC raised by the appellant in the statement of grounds of appeal not be admitted into the proceedings and
- that document D8 and the inventive-step attacks based on the combination of D4 with D6 and a new passage in D1, all filed by the appellant with the letter dated 5 May 2020, not be admitted into the proceedings.

## **Reasons for the Decision**

1. The appeal is admissible. It meets the requirements of Articles 106 to 108 and Rule 99(2) EPC.
2. *Cancellation of the oral proceedings*
  - 2.1 Both parties requested oral proceedings if the board did not intend to grant their respective main requests. For the appellant, this was setting the decision under appeal aside and revoking the patent (notice of appeal, page 2 and statement of grounds of appeal, page 1); for the respondent, this was dismissing the appeal (reply to the statement of grounds of appeal, point 2.1.3).

After receiving the summons, the appellant informed the board that it would neither participate in nor be represented at the scheduled oral proceedings.

2.2 In accordance with the established case law, if oral proceedings are scheduled as a result of a party's request for such proceedings on an auxiliary basis, and if that party subsequently states that it will not be represented at the oral proceedings, the board is not obliged to hold oral proceedings in the party's absence. Under these circumstances, it is within the discretion of the board to decide whether the scheduled oral proceedings are to be maintained or to be cancelled, since it cannot be the purpose of Article 116 EPC that a party can oblige a board to hold oral proceedings in its absence (see T 663/10,, point 1.3 of the Reasons; T 910/02, point 6 of the Reasons; T 671/12, point 2 of the Reasons; and T 166/17, point 1.2 of the Reasons).

2.3 In its preparatory meeting shortly before the oral proceedings, and after having considered all the parties' submissions on file, the board came to the conclusion that the respondent's main request could be granted. As the appellant had announced its absence at the oral proceedings, the board was in a position to make a final decision without holding oral proceedings, in accordance with Articles 113(1) and 116(1) EPC and Article 12(8) RPBA 2020. Consequently, the scheduled oral proceedings were cancelled.

3. *The opposition division's decision to admit auxiliary request 5 (now main request) into the proceedings*

3.1 The main request in these appeal proceedings is the claim request held allowable by the opposition division, which was filed as auxiliary request 5 at the oral proceedings before the opposition division. When auxiliary request 5 was filed, the appellant objected to its admittance. The opposition division nevertheless

admitted the request for being a direct response and a serious attempt to overcome the objections previously raised at the oral proceedings (minutes of oral proceedings, page 5, last two paragraphs and decision under appeal, point 2.8.1).

- 3.2 In these appeal proceedings, the appellant has not formally requested that the opposition division's decision to admit the then auxiliary request 5 be reversed; however, when substantiating its request for a reimbursement of the appeal fee (statement of grounds of appeal, point 6.5), the appellant submitted that, by admitting the claim request, the opposition division violated its right to be heard (Article 113 EPC). Therefore, the board considers it necessary to assess whether the opposition division applied the right criteria when admitting auxiliary request 5.

In such a situation, it is not the function of the board to review all the facts and circumstances of the case as if it were in the place of the opposition division to decide whether it would have exercised the discretion in the same way. The board should only overrule the way in which the opposition division exercised its discretion if it concludes that the division has not exercised its discretion in accordance with the right principles or that it has exercised its discretion in an unreasonable way and thus exceeded the proper limits of its discretion (similar, but in the context of *ex parte* proceedings, see G 7/93, point 2.6 of the Reasons).

- 3.3 When analysing the way in which the opposition division exercised its discretion to admit auxiliary request 5, the board cannot identify any procedural violation. It transpires from the minutes of the oral proceedings

(page 5, section entitled "Auxiliary request 4") and from the decision under appeal (point 2.7.1) that the claim request discussed just before auxiliary request 5 was filed was considered to lack clarity because claim 1 contained inconsistencies in the definition of the chain extender. The features objected to were "hydrolysable linking group", "dithiol" and "other oligomeric diols".

In claim 1 of the then auxiliary request 5, the respondent specified that the hydrolysable linking group was an "ester" and removed the features "dithiol" and "other oligomeric diols". The opposition division considered that these amendments overcame the outstanding clarity objections. Therefore, the opposition division was not wrong to consider that auxiliary request 5 was a direct response and a serious attempt to overcome the objections raised during the oral proceedings. As this was a legitimate principle for admitting the new claim request, and the appellant was able to submit its observations (see point 8 below), the board sees no reason to reverse the opposition division's decision to admit auxiliary request 5 into the proceedings.

4. *Clarity (Article 84 EPC) - main request*

4.1 In the statement of grounds of appeal (points 3.2 and 3.3), the appellant raised the following clarity objections to the main request:

- claim 1 places "polyglycolic acid" among the polyols, but it is not a polyol,
- the feature "dimer" and the term "including" in the definition of the chain extender in claim 1 is unclear and

- it is uncertain what compound is meant by "polo( $\epsilon$ -caprolactone)diol" in claim 4.

4.2 In opposition proceedings (and also in opposition appeal proceedings), objections under Article 84 EPC may not be raised against granted claims, but they may be raised against amended claims if the non-compliance with Article 84 EPC arises from the amendments (G 3/14, Order).

As noted by the respondent (reply to the statement of grounds of appeal, points 2.3.3, 2.3.5 and 2.3.9), the elements on which the clarity objections are based were present in claims 5 and 6 as granted in exactly the same context as in claims 1 and 4 of the main request. Therefore, the alleged lack of clarity does not arise from amendments introduced during the opposition or its subsequent appeal proceedings. Therefore, G 3/14 precludes the examination of the clarity objections raised by the appellant.

5. *Construction of the feature "polyglycolic acid" in claim 1*

Claim 1 of the main request requires that the polyol be selected from the group consisting of polyglycolic acid, poly(lactic acid) diol, poly( $\epsilon$ -caprolactone) diol and polyethylene glycol. It is apparent that, as indicated by the appellant (statement of grounds of appeal, point 3.2), polyglycolic acid is not a polyol since it contains a single hydroxyl group. Therefore, before assessing inventive step, the board needs to construe claim 1.

Taking into consideration that:

- polyglycolic acid is a poly(hydroxy acid)
- the poly(hydroxy acids) in the definition of the polyols in claim 1, namely poly(lactic acid) and poly( $\epsilon$ -caprolactone), are esterified with a diol and
- paragraph [0046] of the patent teaches that suitable polyols are polyglycolic acid diol, poly(lactic acid) diol, poly( $\epsilon$ -caprolactone) diol and polyethylene glycol,

the board understands that "polyglycolic acid" in claim 1 means "polyglycolic acid diol".

6. *Admittance of document D8 (Article 13(1) RPBA 2020)*

The appellant filed D8 with its letter dated 5 May 2020 for the discussion of obviousness. The respondent requested that this document not be admitted into the appeal proceedings because it could have been filed during the opposition proceedings or, at the latest, with the statement of grounds of appeal (respondent's letter of 30 September 2020, page 3, point 1.1.8).

D8 is an excerpt from a textbook on polyurethanes that discloses common general knowledge on cross-linking agents and chain extenders. In view of the outcome of the assessment of inventive step (points 7.7.2 and 7.8 below), the board does not consider it necessary to give more details on its decision to admit D8 pursuant to Article 13(1) RPBA 2020.



7. *Inventive step (Article 56 EPC) - main request*

7.1 The patent (paragraphs [0001] and [0017]) concerns polyurethanes that can be used in rapid prototyping techniques for the fabrication of three dimensional scaffolds for biomedical applications. As the polyurethanes are intended for medical applications, they must be biodegradable and biocompatible, i.e. they must contain hydrolysable groups that result in degradation products that are non-toxic (paragraph [0014]). Furthermore, for its use in rapid prototyping techniques such as fused deposition modelling, the polyurethanes must be thermoplastic so that they can be melt-extruded into filaments that are mechanically stiff and have low melt viscosity (paragraphs [0012] and [0014]).

7.2 The appellant considered that document D4, in particular Example 2, was a suitable starting point for the assessment of inventive step. The board agrees.

D4 (column 1, lines 1 to 7; column 2, lines 9 to 21) teaches the preparation of biodegradable thermoplastic polyurethanes that, owing to their linearity, can be melt-extruded into elastic filaments. The strength and wearing comfort of the filaments make them suitable for use in incontinence products (column 1, lines 8 to 12; column 3, lines 11 to 17). Furthermore, the filaments are biodegradable so that they can be used for disposable articles (column 1, lines 13 to 16; column 2, lines 9 to 21). Example 2 of D4 illustrates the preparation of such a polyurethane by reacting the following ingredients:

- a polyol mixture composed of 90 wt.% of a polyester diol from adipic acid and ethylene glycol, and 10 wt.% polyethylene glycol
- 1,4-butanediol and
- 1,6-hexamethylene diisocyanate.

In this polymer, 1,4-butanediol has the function of a chain extender (column 2, lines 54 and 55).

The respondent argued that the closest prior art should be D1 rather than D4 (reply to the statement of grounds of appeal, point 2.5.5); however, in accordance with the established case law of the boards of appeal, when two or more pieces of prior art are suitable as the starting point for the assessment of inventive step, a conclusion that the subject-matter claimed is inventive can only be reached after assessing this requirement starting from all the possible pieces of closest prior art (see, for instance, T 1742/12, point 6 of the Reasons). Therefore, the appellant cannot argue against assessing inventive step starting from D4. Furthermore, the appellant has not put forward any inventive-step objection starting from D1.

7.3 Regarding the difference from the closest prior art, it was undisputed that the polyurethane in Example 2 of D4 is biocompatible, biodegradable and thermoplastic, and that it comprises an isocyanate and a polyol as defined in claim 1, namely polyethylene glycol. Therefore, the polyurethane in claim 1 differs only in the nature of the chain extender.

7.4 The effect brought about by this difference was disputed by the parties.

- 7.4.1 The respondent referred to paragraphs [0022] and [0048] of the patent and argued (reply to the statement of grounds of appeal, points 2.5.10 to 2.5.14) that the claimed polyurethanes were more biodegradable than that in Example 2 of D4. This would be because the chain extender according to claim 1 has an ester group that hydrolyses easily and increases the degradability of the polyurethane hard segment (i.e. the isocyanate/chain extender block). As 1,4-butanediol lacks an ester function, the hard segment of the polyurethane in D4 does not hydrolyse so easily and is less biodegradable.
- 7.4.2 The board does not dispute that the presence of an ester function in the chain extender imparts biodegradability to the hard segment; however, the fact that the hard segment is more biodegradable does not necessarily mean that the polymer as a whole is more biodegradable; the biodegradability of the polymer results from the contribution of both the hard segment and the soft segment (i.e. the polyol block). The polyurethane in Example 2 of D4 is highly biodegradable because its soft segment contains 90 wt.% of an easily hydrolysable polyester. In contrast, the soft segment of the polyurethane in claim 1 may consist exclusively of polyethylene glycol, which does not contain any hydrolysable ester function. Therefore, even admitting that the hard segment of the polyurethane of claim 1 is more biodegradable than that of the polyurethane in Example 2 of D4, its soft segment may be considerably less biodegradable. This was also conceded by the respondent in its letter of 30 September 2020 (point 3.3.1), which stated that when the polyol in claim 1 is polyethylene glycol, only the chain extender is hydrolysable. Consequently, the board agrees with the appellant that the difference from the prior art does

not necessarily result in a more biodegradable polyurethane.

- 7.4.3 With its reply to the statement of grounds of appeal, the respondent filed document D7, which contains comparative tests that allegedly demonstrate that the claimed polyurethanes are more biodegradable than the polyurethane in Example 2 of D4. Without prejudicing the issue of the admittance of D7 pursuant to Article 12(4) RPBA 2007, at first glance, the comparative tests presented in D7 are not suitable for the intended purpose. D7 compares two polyurethanes which differ only in their chain extender. Such a test cannot demonstrate that a polymer according to claim 1 in which the soft segment is composed of polyethylene glycol is more biodegradable than the polyurethane in Example 2 of D4, which has an easily hydrolysable soft segment composed of 90 wt.% polyester. Therefore, the conclusion in point 7.4.2 above remains the same, whether D7 is admitted or not.
- 7.5 It follows that, in line with the appellant's proposal (letter of 5 May 2020, page 12, point 3), the objective technical problem can be formulated as that of providing an alternative biocompatible biodegradable thermoplastic polyurethane. In the board's view, the fact that the claimed polyurethane is an alternative to that in D4 implies that it can also be melt-extruded into filaments.
- 7.6 The board is satisfied that the polyurethane defined in claim 1 solves this problem. This was not contested by the appellant. As required by claim 1, the proposed polyurethane is biocompatible, biodegradable and thermoplastic. These properties are achieved by the components defined in claim 1, which are essentially

difunctional and hydrolysable to non-toxic compounds. The board is aware that the isocyanate in claim 1 is not explicitly limited to a diisocyanate; however, this limitation is implicit from the fact that the polymer must be thermoplastic and hence essentially linear. Dependent claims 2 to 4 confirm this limitation. Therefore, as in D4, the polyurethanes in claim 1 are essentially linear and suitable for being melt-extruded into filaments, as suggested by the data in Example 8a of the patent.

7.7 On obviousness, the appellant cited Example 17 of D1, which discloses the compound "EG:lactide polyol" having a molecular weight of 134. It was common ground between the parties that this compound is the chain extender in claim 1 "lactic acid-ethylene glycol dimer".

The appellant also referred to the common general knowledge on cross-linking agents and chain extenders disclosed in D8. It argued that the skilled person knew from D8 that basically any low molecular weight compound having two functional groups that react with isocyanate may be used as a chain extender. As the lactic acid-ethylene glycol dimer in Example 17 of D1 is a diol, the skilled person would have considered it to be an alternative to the chain extender in D4 1,4-butenediol.

7.7.1 The board disagrees. D4 can only be combined with Example 17 of D1 with hindsight. For the reasons explained below, the skilled person had no motivation to replace the chain extender in Example 2 of D4 with the lactic acid-ethylene glycol dimer in Example 17 of D1.

D1 (page 1, lines 6 to 8; page 12, line 30 to page 13, line 4) concerns biocompatible, biodegradable polyurethanes that are synthesised in two steps: (i) preparing a flowable hyperbranched prepolymer and (ii) injecting this prepolymer into a mould and cross-linking it. This is the process illustrated in Example 17, in which a liquid hyperbranched prepolymer from pentaerythritol and a diisocyanate was injected into a mould and cross-linked with polycaprolactone triol and the lactic acid-ethylene glycol dimer.

It is apparent that the teaching of D4 and the teaching of D1 are incompatible: while the polyurethanes in D4 are essentially linear and not cross-linked so that they are thermoplastic and can be melt-extruded into filaments, D1 discloses thermoset polyurethanes prepared from flowable hyperbranched prepolymers that can be injected into a mould and subsequently cross-linked. Contrary to D4, the polyurethanes in D1 do not contain a chain extender; the lactic acid-ethylene glycol dimer used in Example 17 of D1 has the function of a cross-linking agent.

The skilled person starting from D4 and seeking an alternative polyurethane had different options for modifying the original polymer, one of which was replacing the chain extender with an alternative chain extender. Should the skilled person select this option, they would certainly not turn to D1. They would look for compounds already known as polyurethane chain extenders rather than selecting a compound having a different function in a document containing teaching that is incompatible with the starting point.

7.7.2 The common general knowledge disclosed in D8 does not change this conclusion. D8 basically teaches that chain

extenders are low molecular weight compounds having two functional groups that react with isocyanate, and that they influence the properties of the polyurethane by changing the hard segment/soft segment relationship. The board does not derive from this teaching that any compound having two functional groups that react with isocyanate is a chain extender. Furthermore, D8 explicitly cites some diols as examples of chain extenders, namely alkylene diols in general and ethylene glycol, 1,4-butanediol and 2,3-butanediol in particular, or bis-(hydroxyethyl) hydroquinone. None of these chain extenders has an ester function. Therefore, D8 would not give the skilled person any incentive to select a compound from D1, which does not contain any teaching relating to chain extenders, just because the compound contains two hydroxyl groups.

7.7.3 For the sake of completeness, the board notes that, irrespective of the issue of its admittance under Article 13(1) RPBA 2020, the appellant's inventive-step attack combining documents D4 and D6 (letter of 5 May 2020, page 14, point 5) cannot succeed, if only for the reason that D6 does not disclose any of the chain extenders listed in claim 1.

7.8 Therefore, the subject-matter of claim 1 is inventive and meets the requirements of Article 56 EPC. This is also the case for the other independent claims of the main request, namely claims 5 and 12, since they involve the use of the polymer in claim 1.

8. *Admittance of objections under Article 123(2) and Article 83 EPC (Article 12(4) RPBA 2007)*

8.1 With the statement of grounds of appeal, the appellant raised objections under Article 123(2) and Article 83

EPC to the request held allowable by the opposition division for the first time. This request was filed as auxiliary request 5 during the oral proceedings before the opposition division and is the main request in these appeal proceedings.

The respondent requested that these new objections not be admitted into the appeal proceedings.

- 8.2 As the statement of grounds of appeal was filed on 13 August 2019, Article 12(4) RPBA 2007 applies (see Article 25(2) RPBA 2020). In accordance with Article 12(4) RPBA 2007, the board has the power to hold inadmissible facts, evidence or requests that could have been presented in the opposition proceedings.

It derives from the minutes of the oral proceedings before the opposition division (pages 5 and 6) that the objections discussed for the then auxiliary request 5 were admittance, clarity, novelty and inventive step. At the end of the oral proceedings, the opposition division asked the appellant whether it had any further comments on auxiliary request 5. It had none. Therefore, the appellant had the opportunity to raise added-matter and sufficiency objections against auxiliary request 5 in the opposition proceedings, but it did not do so.

- 8.3 The appellant argued (letter of 5 May 2020, paragraph bridging pages 2 and 3) that auxiliary request 5 was not based on the granted claims only but that it included elements taken from the description. For this reason, the appellant objected to the admittance of the request. As the claim request was nevertheless admitted by the opposition division, the appellant requested



that the oral proceedings be postponed. This request was rejected by the opposition division, meaning that the appellant allegedly did not have enough time to prepare its case against the then auxiliary request 5. Therefore, for the sake of fairness, the added-matter and sufficiency objections raised with the statement of grounds of appeal to the current main request were to be admitted into the appeal proceedings.

This argument is not convincing. The issue of the admittance of auxiliary request 5 has been dealt with in point 3 above. Regarding the appellant's need to postpone the oral proceedings to prepare its case, the appellant did not indicate the feature in claim 1 that had been taken from the description and that justified its request for postponement of the oral proceedings. Comparing claim 5 as granted and claim 1 of the main request, it appears that the appellant referred to the statement in claim 1 that the hydrolysable linking group in the chain extender is an ester; however, it is apparent that this feature is superfluous and does not impose any limitation on claim 1, since the hydrolysable linking groups in the recited chain extenders are all esters. Therefore, as noted by the respondent (letter of 30 September 2020, point 1.1.1), claim 1 of auxiliary request 5 is essentially claim 5 as granted.

The notice of opposition (page 3, last paragraph and page 7, point 4.2) contained objections under Article 123(2) and Article 83 EPC against claim 5 as granted. In its preliminary opinion in preparation for the oral proceedings (page 3, point 2.4 and page 5), the opposition division did not agree with those objections. This preliminary opinion was contested by the appellant in its letter of 30 November 2018 (page

8, point 2.4.3 and page 13, point 3.3.1). Therefore, considering that the patentability of the subject-matter of claim 5 as granted, including the issues of added matter and sufficiency of disclosure, had been discussed throughout the opposition proceedings, the appellant could be expected to be familiar with claim 5 as granted and to be prepared to present its objections without the oral proceedings being adjourned. According to the minutes of the oral proceedings, the appellant requested time to prepare its inventive-step objection to auxiliary request 5, which the opposition division granted; however, the appellant apparently did not request additional time for preparing other objections to auxiliary request 5. Therefore, the board holds that the objections of added matter and sufficiency of disclosure could and should have been raised in the opposition proceedings.

8.4 Therefore, the objections under Article 123(2) and Article 83 EPC to the main request are inadmissible pursuant to Article 12(4) RPBA 2007.

9. *Reimbursement of appeal fee (Rule 103 EPC)*

9.1 The appellant requested that the appeal fee be reimbursed because the opposition division allegedly committed several substantial procedural violations. The points in parentheses refer to section 6 on page 24 of the statement of grounds of appeal:

- (point 6.2) the decision under appeal did not contain any reasoning as to why the appellant's request for postponement of the oral proceedings if auxiliary request 1 was admitted was rejected

- (point 6.3) auxiliary request 2 should not have been admitted because it was filed late and clearly unallowable,
- (point 6.4) the admittance of auxiliary request 4 was not discussed at the oral proceedings and the reasons why the request was admitted were not given in the decision under appeal,
- (point 6.5) auxiliary request 5 should not have been admitted and the reasons why this request met the requirements of Article 123(2) EPC were not given in the decision under appeal and
- (point 6.6) the decision under appeal did not contain any reasons why the sufficiency arguments filed by the appellant in its response to the opposition division's preliminary opinion were not convincing.

9.2 Regarding the procedural violations alleged in points 6.2 to 6.4 of the statement of grounds of appeal, the board notes that they concern auxiliary requests 1 to 4 on which the decision under appeal is based. Those claim requests were not allowed by the opposition division. Therefore, the alleged procedural violations were not the cause of this appeal being filed and cannot justify a reimbursement of the appeal fee.

With regard to the procedural violations mentioned in points 6.5 and 6.6, the board has explained above (point 3.3) that it does not see any substantial procedural violation in how the opposition division exercised its discretion to admit auxiliary request 5. Furthermore, as the appellant had not raised any objection to auxiliary request 5 under Article 123(2) and Article 83 EPC, the opposition division did not need to give any reasons on these grounds for auxiliary request 5.

9.3 Therefore, the appellant's request for a reimbursement of the appeal fee due to a substantial procedural violation is rejected.

## Order

### For these reasons it is decided that:

1. The appeal is dismissed.
2. The appeal fee is not reimbursed.

The Registrar:

The Chairman:



B. Atienza Vivancos

A. Uselli

Decision electronically authenticated