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Datasheet for the decision of 24 January 2024

Case Number:	T 1813/21 - 3.3.03
Application Number:	11765803.9
Publication Number:	2554599
IPC:	C08L69/00, C08K3/32, C08K5/02, C08K5/42, C08K5/49, B29K69/00, C08K3/00, B29C45/00, B29C47/00, B29B9/06, B29B9/12, B29B7/46
Language of the proceedings:	EN

Title of invention:

POLYCARBONATE RESIN COMPOSITION, METHOD FOR PRODUCING SAME AND MOLDED ARTICLE OF THIS RESIN COMPOSITION

Patent Proprietor:

Mitsubishi Chemical Corporation

Opponent:

SABIC Global Technologies B.V.

Relevant legal provisions:

EPC Art. 56
RPBA 2020 Art. 12(4)

Keyword:
Inventive step - (no)
Amendment to case - reasons for submitting amendment in appeal proceedings (yes)

Decisions cited:
T 0035/85, T 0197/86, T 0939/92, T 0578/06

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Case Number: T 1813/21 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 24 January 2024

Appellant: (Patent Proprietor)	Mitsubishi Chemical Corporation 1-1, Marunouchi 1-chome Chiyoda-ku Tokyo 100-8251 (JP)
Representative:	Ter Meer Steinmeister & Partner Patentanwälte mbB Nymphenburger Straße 4 80335 München (DE)
Respondent: (Opponent)	SABIC Global Technologies B.V. Plasticslaan 1 4612 PX Bergen op Zoom (NL)
Representative:	Modiano, Gabriella Diana Modiano & Partners (DE) Thierschstrasse 11 80538 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 2 August 2021 concerning maintenance of the European Patent No. 2554599 in amended form.**

Composition of the Board:

Chairman	M. Barrère
Members:	O. Dury
	A. Bacchin

Summary of Facts and Submissions

I. The appeal of the patent proprietor is against the interlocutory decision of the opposition division maintaining European patent No. 2 554 599 in amended form on the basis of the claims of auxiliary request 4 filed during the oral proceedings before the opposition division and a description adapted thereto.

II. The following documents were, among others, cited in the decision under appeal:

D7: US 2008/0254299 A1
D21: Experimental report "Additional Example 9B"

III. The decision under appeal was based on the patent as granted as the main request, on auxiliary request 1 filed with letter of 14 May 2019, on auxiliary requests 2 and 3 filed with letter of 13 March 2020 and on auxiliary request 4 filed during the oral proceedings before the opposition division. As far as relevant to the present case, the following conclusions were reached in that decision:

- The subject-matter of claim 1 of each of the main request and auxiliary requests 1 to 3 did not involve an inventive step when document D7 was taken as the closest prior art.

- The subject-matter of claim 1 of auxiliary request 4 involved an inventive step when document D7 was taken as the closest prior art.

For these reasons and since none of the other objections put forward by the opponent against auxiliary request 4 were successful, the patent amended on the basis of that request was held to meet the requirements of the EPC.

IV. The patent proprietor (appellant) appealed against the above decision and, together with their statement of grounds of appeal, filed three sets of claims as auxiliary requests 1 to 3, as well as the following document:

D22: Experimental report, dated 13 December 2021

V. The opponent (respondent) filed a rejoinder to the statement of grounds of appeal.

VI. The parties were summoned to oral proceedings and a communication pursuant to Article 15(1) RPBA indicating specific issues to be discussed at the oral proceedings was then sent to the parties.

VII. Oral proceedings were held on 24 January 2024.

VIII. **The final requests of the parties were as follows:**

(a) The appellant requested that the decision under appeal be set aside and the opposition be rejected (main request) or, in the alternative, that the decision under appeal be set aside and the patent be maintained in amended form on the basis of any of auxiliary requests 1 to 3 filed with the statement of grounds of appeal.

(b) The respondent requested that the appeal be dismissed.

IX. Claim 1 of the **main request** (patent as granted) read as follows:

"1. A polycarbonate resin composition comprising at least a polycarbonate resin (a) and a polycarbonate resin (b) having structural units different from the polycarbonate resin (a), which satisfies the following requirements:

(i) the pencil hardness of the polycarbonate resin (a) as specified by ISO 15184 is higher than the pencil hardness of the polycarbonate resin (b) as specified by ISO 15184;

(ii) the glass transition point Tg(a) of the polycarbonate resin (a) and the glass transition point Tg(b) of the polycarbonate resin (b) satisfy the relation of the following (Formula 1):

$$Tg(b) - 45^{\circ}C < Tg(a) < Tg(b) - 10^{\circ}C \quad \text{(Formula 1)}$$

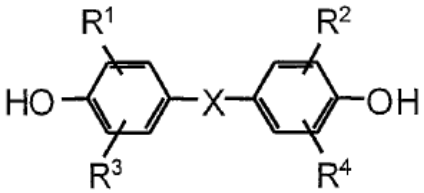
and

(iii) the pencil hardness of the polycarbonate resin composition as specified by ISO 15184 is higher by at least two ranks than the pencil hardness of the polycarbonate resin (b) as specified by ISO 15184,

wherein the glass transition point is measured using a differential scanning calorimeter at a heating rate of 20°C/min, and is calculated according to JIS K7121."

X. Claim 1 of **auxiliary request 1** differed from claim 1 of the main request in that polycarbonate (a) was further defined as follows:

"wherein the polycarbonate resin (a) is a polycarbonate resin having at least structural units derived from a compound represented by the following formula (1):

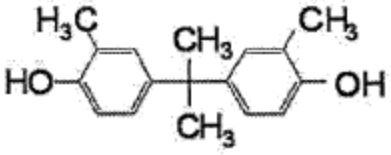


Formula (1)

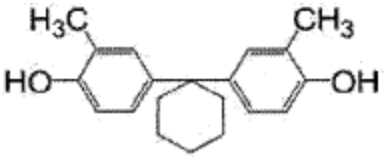
wherein each of R^1 and R^2 which are independent of each other, is a substituted or non-substituted C_{1-20} alkyl group or a substituted or non-substituted aryl group, each of R^3 and R^4 which are independent of each other, is a hydrogen atom, a substituted or non-substituted C_{1-20} alkyl group or a substituted or non-substituted aryl group, and X is a single bond, a carbonyl group, a substituted or non-substituted alkylidene group, an oxidized or non-oxidized sulfur atom, or an oxygen atom."

XI. Claim 1 of **auxiliary request 2** differed from claim 1 of the main request in that polycarbonate (a) was further defined as follows:

"wherein the polycarbonate resin (a) is a polycarbonate resin having at least structural units derived from at least one compound selected from the group consisting of the following formulae (1a) and (1b):



(1a)

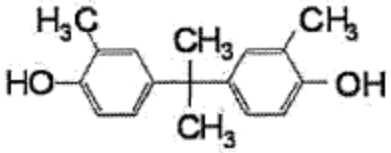


(1b)

"

XII. **Claim 1 of auxiliary request 3** differed from claim 1 of the main request in that polycarbonate (a) was further defined as follows:

"wherein the polycarbonate resin (a) is a polycarbonate resin having at least structural units derived from the compound of formula (1a):

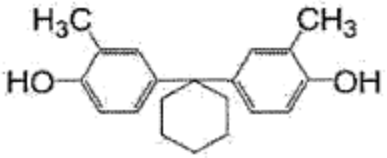


(1a)

"

In addition, **claim 2 of auxiliary request 3** differed from claim 1 of the main request in that the following features were added thereto:

"wherein the polycarbonate resin (a) is a polycarbonate resin having at least structural units derived from a compound of the following formulae (1b):



(1b)

" and

"wherein the ratio of the viscosity average molecular weight Mv(a) of the polycarbonate resin (a) to the viscosity average molecular weight Mv(b) of the polycarbonate resin (b), Mv(a)/Mv(b), is at least 0.1 and at most 2.0."

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

(a) D22 should be admitted into the proceedings;

(b) The subject-matter of claim 1 of each of the main request and of auxiliary requests 1 and 2 involved an inventive step when document D7 was taken as the closest prior art;

(c) Auxiliary request 3 should be admitted into the proceedings;

(d) The subject-matter of claim 2 of auxiliary request 3 involved an inventive step when document D7 was taken as the closest prior art.

XIV. The respondent's arguments, in so far as they are pertinent, may be derived from the reasons for the decision below. They are essentially as follows:

(a) D22 should not be admitted into the proceedings;

(b) The subject-matter of claim 1 of each of the main request and of auxiliary requests 1 and 2 did not involve an inventive step when document D7 was taken as the closest prior art;

(c) Auxiliary request 3 should not be admitted into the proceedings;

(d) The subject-matter of claim 2 of auxiliary request 3 did not involve an inventive step when document D7 was taken as the closest prior art.

Reasons for the Decision

1. Admittance of D22

1.1 The respondent requested that D22 not be admitted into the proceedings.

1.2 In that respect, the filing of D22 and of the submissions based thereon with the statement of grounds of appeal constitute an amendment to the appellant (patent proprietor)'s case (Article 12(2) and (4) RPBA), the admittance of which undergoes the stipulations of Article 12(4) to (6) RPBA.

1.3 It is derivable from the appellant's submissions that D22 is an experimental report which was filed in support of their line of defence regarding inventive step of claim 1 of the main request in view of D7 as the closest prior art, in particular regarding the achievement of a technical effect.

a) Considering that the operative main request is the

patent in suit and that the issue of inventive step in view of D7 as the closest prior art was at stake from the outset of the opposition proceedings (notice of opposition: page 17, see in particular point 1; preliminary opinion of the opposition division: section 7), the question arose if D22 should be not admitted because it should have been filed during the opposition proceedings (Article 12(6) RPBA).

b) In that respect, the appellant argued that D22 was filed in order to overcome the respondent's objection putting in question the relevance of experimental report D21, which was raised for the first time at the oral proceedings before the opposition division and this, although D21 had been filed much earlier (statement of grounds of appeal: page 19, second paragraph). Also, D22 was filed in order to refute an assumption made by the opposition division in the decision under appeal, which was highly relevant for the conclusion reached by the opposition division (statement of grounds of appeal: section 3.1; see also: top of page 22 and page 24, second paragraph).

c) The Board shares the appellant's view that since the validity of the comparative data contained in D21 was objected to by the opponent for the first time at the oral proceedings before the opposition division, it cannot be concluded that D22 should have been filed earlier (Article 12(6) RPBA). In addition, since the appellant filed D22 to try to refute an assumption made by the opposition division which was decisive for their decision on inventive step, the filing of D22 constitutes a legitimate and timely reaction to the decision under appeal. In particular, the Board cannot identify a deliberate abuse of the procedure on the side of the appellant which would be detrimental to the

procedural economy. Rather, the Board considers that the filing of D22 at the outset of the appeal proceedings is the result of normal developments in the opposition appeal proceedings.

d) The respondent put forward that i) the comparison made in D22 was not made in respect of a composition illustrating the teaching of the closest prior art and ii) the polycarbonate illustrative of the invention and the one used for comparison in D22 had been prepared using different processes, whereby the process used to prepare the polycarbonate according to the invention was not according to the teaching of the patent in suit (see e.g. rejoinder: section IIE-1c on page 10). Therefore, D22 should not be admitted because it was not *prima facie* relevant, so the respondent.

However, these objections of the respondent go beyond the question of a document's *prima facie* relevance as they are based on a detailed analysis of the disclosure of D22, which can only be done once the document is admitted. Also, the respondent's arguments are rather related to the probative value of D22 rather than to the question of its admittance. Therefore, these objections are not persuasive.

e) In view of the above, the Board found it appropriate to make use of its discretion to admit D22 into the proceedings (Article 12(4) RPBA).

Main request (patent as granted)

2. Inventive step

2.1 The appellant contested the findings of the opposition division that the subject-matter of claim 1 of the main

request did not involve an inventive step when document D7 was taken as the closest prior art.

2.2 Closest prior art and distinguishing feature(s)

2.2.1 It was common ground that:

(a) D7 was a suitable document to be taken as the closest prior art for the subject-matter of claim 1 of the main request.

(b) The subject-matter of claim 1 of the main request differed from the polycarbonate (PC) blends prepared in examples B, C, D or E of D7 in respect of feature (ii), which defined that the glass transition points of polycarbonates (a) and (b) should satisfy formula (1) mentioned therein, in particular the requirement "Tg(a) < Tg(b) - 10°C" (statement of grounds of appeal: section 3.2, sixth and seventh paragraphs and section 3.3; rejoinder: page 4, section IIB).

2.2.2 The Board has no reason to be of a different opinion.

a) In particular, examples B to E of D7 (paragraph 46 and Table 1) are directed to coextruded films comprising a top layer containing polycarbonate blends of a dimethyl bisphenol cyclohexane polycarbonate (DMBPC-PC) and a bisphenol A polycarbonate (BPA-PC) in various amounts (see paragraph 46 and table 1 of D7). It remained undisputed that the pencil hardness of DMBPC-PC was higher than the one of BPA-PC (see decision under appeal: page 9, end of first paragraph). Also, it is derivable from the data of D7 that the pencil hardness of the polycarbonate blends prepared in examples B to E of D7 is higher by at least two ranks

than the pencil hardness of the sole BPA-PC (D7: table 1, in which example A is a composition of 100 wt.% BPA-PC). Therefore, features (i) and (iii) according to claim 1 of the main request are met by the polycarbonate blends prepared in each of examples B to E of D7.

b) However, the polycarbonates DMBPC-PC and BPA-PC used in examples B to E of D7 exhibit a glass transition temperature of 137°C and 144°C, respectively (see tables in paragraph 46 of D7). Accordingly, the difference in Tg for these components is of only 7 °C and the requirement of formula (1) according to claim 1 of the main request "Tg(a) < Tg(b) - 10°C" is not satisfied for any of these examples B to E of D7.

2.3 Technical problem solved over the closest prior art

2.3.1 The parties did not agree on how the problem effectively solved over D7 should be formulated (alternative or improvement). Whereas the appellant argued that the problem solved over D7 was to provide scratch resistant polycarbonate compositions with an improved balance of hardness, melt viscosity, yellowness index and Charpy impact strength (statement of grounds of appeal: sections 3.5 and 3.6; oral proceedings before the Board), the respondent was of the opinion that it was to provide a mere alternative polycarbonate blend (rejoinder: page 17, section IIF; oral proceedings before the Board).

2.3.2 In order to demonstrate that the problem of providing an improved balance of properties was effectively achieved, the appellant put forward arguments related on conclusions drawn from either the experimental part of the patent in suit, D21 or D22 (see e.g. statement

of grounds of appeal: sections 3.4 and 3.5). In that regard, it is noted that the respondent made a short reference to the referral to the Enlarged Board of Appeal G 2/21 (rejoinder: page 1, third paragraph below request C), for the case that proof of a technical effect were to rest exclusively on post-published evidence D21 or D22. However, at the oral proceedings before the Board, the respondent agreed with the preliminary considerations of the Board according to which the respondent's concerns that referral G 2/21 might be relevant to the present case were unjustified, substantially because the effects relied upon by the appellant do not rest on post-published evidence, but are rather related to the ones mentioned in the patent, such as in paragraphs 8 to 11 and 13 (communication: section 6.3.2) and did not pursue their objection. Therefore, the experimental data of D21 and D22 can be taken into account hereinafter.

a) However, it remained undisputed (in particular at the oral proceedings before the Board) that none of the comparative examples relied upon by the appellant illustrate a composition according to any of examples B to E of D7, which, in line with the overall teaching of D7, are directed to polycarbonate blends comprising at least 50 w.% of DMBPC-PC and an amount of less than 50 wt.% of BPA-PC. In particular, all the relevant examples relied upon by the appellant, specifically the comparative examples, comprise at most 20 wt.% of BPA-PC (table 2B of D21; table 2 of D22; examples 1-4, 6, 7, 9, comparative example 2 of the patent in suit, which were relied upon by the patent proprietor either in their statement of grounds of appeal or during the opposition proceedings as mentioned on pages 9 and 10 of the decision under appeal). Therefore, the comparisons relied upon by the appellant were not made

with respect to compositions according to the closest prior art (example B to E of D7) and - already for that reason - it cannot be concluded that the experimental data on file allow to make a fair comparison between the subject-matter being claimed and the closest prior art (see rejoinder: page 10, section IIE-1b).

b) According to established case law (Case Law of the Boards of Appeal of the EPO, 10th edition, 2022, I.D.4.3.2; see in particular T 35/85: section 4 of the reasons, and T 197/86, OJ EPO 1989, 371: section 6.1.3 of the reasons), it is accepted that the patent proprietor (here, the appellant) may discharge his onus of proof by voluntarily submitting comparative tests with newly prepared variants of the closest state of the art identifying the features common with the invention, in order to have a variant lying closer to the invention so that the advantageous effect attributable to the distinguishing feature is thereby more clearly demonstrated.

c) However, in the present case, since the comparative examples on file do not illustrate the teaching of the closest prior art (see e.g. the definition of the top layer according to feature (a) of claim 1 and/or in examples B to E of D7) they are not suitable to demonstrate that an advantageous effect is effectively achieved over the closest prior art. In particular, in view of the significantly different amounts of both DMBPC-PC and BPA-PC used in the comparative examples relied upon by the appellant as compared to the specific disclosures of the closest prior art D7 and to the general teaching of D7 (claim 1), these comparative examples do not constitute variants lying closer to the invention which are suitable to show an advantageous effect attributable to the distinguishing feature

"Tg(a) < Tg(b) - 10°C" according to feature (ii) of claim 1 of the main request. In particular, in the circumstances of the present case, the Board considers that the evidence on file does not allow to conclude that any advantageously effect may be attributed to the distinguishing feature "Tg(a) < Tg(b) - 10°C".

2.3.3 At the oral proceedings before the Board, the appellant argued that the skilled person would expect that the beneficial effects shown in the experimental data on file (patent in suit, D21 and D22) would also be obtained if amounts of DMBPC-PC and BPA-PC according to the teaching of D7 were used, albeit at a lower degree: although a deterioration in absolute terms might be expected, the effects shown would still be obtained, so the appellant. In other words, by extrapolation of the data on file, the skilled person would expect that the effects shown would also be present for polycarbonate blends according to the closest prior art, albeit at a lower degree.

a) However, the Board agrees with the respondent that, as was put forward at the oral proceedings, the argument of the appellant is, in the absence of any evidence, speculative. In particular, the Board shares the view of the respondent that, in view of the significantly different amounts of both polycarbonates making up the blend prepared in the comparative examples relied upon by the appellant as compared to the specific disclosure of the closest prior art, it cannot be excluded that any effect that would be shown in these comparative examples would not mandatorily be achieved for polycarbonate blends according to the closest prior art D7. In particular, since the appellant acknowledged that the effects shown in the comparative data on file might deteriorate for

polycarbonate blends according to the closest prior art, there is no reason to exclude that these effects may even not be noticeable any more for compositions according to the disclosure of D7.

b) In addition, according to established case law, each party bears the burden of proof for the facts it alleges (Case Law, *supra*, III.G.5.1.1). For the reasons indicated above, in the present case the appellant has not discharged its burden of proving that the subject-matter claimed provides an advantage over the closest prior art, a fact which primarily resides on the patent proprietor especially if the case at hand allows the substantiation of doubts about the suitability of the claimed invention to provide such an improvement.

c) For that reason also, since the Board considers that in the circumstances of the present case the appellant has not rendered credible that any improvement over the closest prior art was effectively achieved, the Board was also not convinced by the appellant's argument put forward at the oral proceedings that the respondent's objection was not substantiated by any evidence (reference being made by the appellant to the passage of the Case Law, I.D.4.3.3, in particular with regard to decision T 578/06).

2.3.4 In view of the above, no effect can be acknowledged for the distinguishing feature related to feature (ii) of claim 1 of the main request, in particular for the requirement "Tg(a) < Tg(b) - 10°C".

2.3.5 Under these circumstances, the problem effectively solved by the compositions according to claim 1 of the main request resides in the provision of further polycarbonate resin compositions, in alternative to the

ones of examples B to E of D7.

2.4 Obviousness

2.4.1 The question remains to be answered if the skilled person, desiring to solve the problem defined in above section 2.3.5, would, in view of the closest prior art, possibly in combination with other prior art or with common general knowledge, have modified the disclosure of the closest prior art in such a way as to arrive at the claimed subject-matter.

2.4.2 In that respect, although it is indicated in D7 that the DMBPC-PC homopolymers taught therein should have a glass transition temperature in the range of 135 to 145°C (D7: paragraph 31), this requirement is only relevant for applications in which coextrusion with BPA-PC is required - as is the case for the examples of D7: see paragraph 46 thereof - (the whole sentence of interest in paragraph 31 of D7 reads: "The polymer, have Tg values in the range of 135 to 145° C, that are comparable to that of BPA homopolymer, and therefore that can be easily used in the coextrusion process."). In addition, the Board is satisfied that, contrary to the appellant's view, said disclosure of D7 does not teach away the skilled person looking for a mere alternative polycarbonate composition (and which are not mandatorily suitable for coextrusion processes with BPA-PC) from using a DMBPC-PC and a BPA-PC with glass transition temperatures that differ one from the other by a bit more than 10°C, so as to fulfill feature (ii) according to claim 1 of the main request. To the contrary, in order to provide a mere alternative, the skilled person would use any blend of DMBPC-PC and BPA-PC within the ambit of D7, whereby it is derivable from paragraphs 40-41 of D7 that said prior art document is

not limited to applications involving coextrusion of DMBPC-PC/BPA-PC blends with BPA-PC. That conclusion is, in the Board's view, further confirmed by the fact that e.g. claim 1 of D7 does not contain any limitation in terms of the Tg of the polycarbonates defined therein. Also, it was not shown that D7 contains any information that would lead the skilled person to disregard using a blend of DMBPC-PC and BPA-PC, for which the Tg of the DMBPC-PC (Tg(a) according to claim 1 of the main request) would be e.g. 11°C lower than the Tg of the BPA-PC (Tg(b) according to claim 1 of the main request), i.e. thereby satisfying the requirement of formula (1) of claim 1 of the main request according to which "Tg(a) < Tg(b) - 10°C".

2.4.3 In view of section 2.4.2 above, the Board is further satisfied that blends of polycarbonates satisfying feature (ii) according to claim 1 of the main request, are within the general disclosure of D7 (although they are not specifically disclosed therein). Therefore, since the Board arrived at the conclusion that said feature (ii) is not related to any technical effect, selecting two polycarbonates according to the teaching of D7 which satisfy said feature (ii) constitutes an arbitrary measure according to the teaching of D7. In that regard, the established decisive principle governing the answer to the question as to what a person skilled in the art would have done depends on the result they wished to obtain (T 939/92, OJ EPO 1996, 309: point 2.5.3 of the reasons). In the present case, since feature (ii) defined in claim 1 of the main request is not related to any effect, no suggestion or hint for that relationship in the prior art is needed in order to render the subject-matter claimed obvious. Rather, it is sufficient to show that said (missing) feature constitutes an arbitrary selection within a

host of available alternatives, which is the case here as outlined in section 2.4.2 above.

2.4.4 The appellant put forward that, even if the problem to be solved resided in the provision of a mere alternative, an inventive step should be acknowledged (statement of grounds of appeal: section 3.8).

However, the appellant's arguments are related to so-called "selection inventions", which according to established case law, is an issue of novelty, not inventive step. That conclusion, which was identified in the Board's communication, was not contested any further by the appellant, in particular at the oral proceedings before the Board.

2.4.5 The appellant argued that even if the skilled person were to replace the DMBPC-PC used in the examples of D7 with a different DMBPC-PC having a different Tg, s/he would still not arrive at the subject matter of claim 1 because D7 taught that the Tg of the the DMBPC-PC should be comparable to the one of the BPA-PC (statement of grounds of appeal: page 28, first full paragraph).

However, as indicated in section 2.4.2 above, the Board considers that the passage of D7 relied upon by the appellant is only relevant for applications in which coextrusion with BPA-PC is required and, furthermore, does not appear to exclude the use of glass transition temperatures that differ from each other by a bit more than 10°C.

2.4.6 For these reasons, the distinguishing feature identified in section 2.2.1.b above is, in view of the

disclosure of D7 alone, obvious.

2.4.7 In view of the above, the arguments provided by the appellant do not justify that the Board overturns the decision of the opposition division according to which claim 1 of the main request did not involve an inventive step when document D7 is taken as the closest prior art.

Auxiliary requests 1 and 2

3. Although the amendments made in claim 1 of each of auxiliary requests 1 and 2 effectively limit the scope of claim 1 of these requests (as compared to the one of claim 1 of the main request), they are not suitable to overcome the conclusion regarding inventive step over examples B to E of D7 reached for claim 1 of the main request. Indeed, claim 1 of each of auxiliary requests 1 and 2 can only share the same fate as claim 1 of the main request because the amendments related to the definition of polycarbonate (a) made in claim 1 of auxiliary requests 1 and 2 does not constitute an additional distinguishing feature over the relevant examples of D7 (DMBPC-PC is a polycarbonate having structural units according to formulae (1) and (1b) according to claim 1 of auxiliary requests 1 and 2, respectively). That view, which was indicated in the Board's communication (section 12.1), was acknowledged by the appellant at the oral proceedings. Therefore, claim 1 of each of auxiliary requests 1 and 2 does not involve an inventive step when D7 is taken as the closest prior art.

Auxiliary request 3

4. Admittance

4.1 The respondent requested that auxiliary request 3 not be admitted into the proceedings (rejoinder: page 3, section ID).

4.2 Considering that it remained undisputed that auxiliary request 3 was submitted for the first time together with the statement of grounds of appeal, its admittance is subject to the stipulations of Article 12(4) to 12(6) RPBA.

4.3 In that respect, auxiliary request 3 corresponds to the main request in which claim 1 is replaced by two claims, wherein:

- The first one is claim 1 as granted limited to polycarbonate (a) being derived from the compound of formula (1a) (and corresponds to claim 1 of auxiliary request 4 allowed by the opposition division); and

- The second one is claim 1 as granted limited to polycarbonate (a) being derived from the compound of formula (1b) and a specific requirement in terms of the range of viscosity average molecular weight of polycarbonates (a) and (b) (see details in section XII of the present decision).

4.4 In that respect, the Board is satisfied, in view of the file history, that the appellant realised for the first time on receipt of the decision, that a decisive fact retained by the opposition division to reach their decision on (lack of) inventive step over D7 for

claim 1 as granted (i.e. the main request dealt with in the decision under appeal and further defended in the present appeal proceedings) was the opponent's argument according to which the difference in viscosity average molecular weight between the polycarbonates (a) and (b) used in the experimental data of the appellant was the main reason for the observed effects (and not the difference in Tg, as argued by the appellant), which property was however neither directly nor indirectly reflected in claim 1 of any of the then operative claims (decision under appeal: page 10, last paragraph). In that respect, it is derivable from the file history that that issue was raised for the first time at the oral proceedings before the opposition division and it was not shown that the relevance of said criterion for the decision reached by the opposition division was ever clearly communicated to the patent proprietor. In addition, the replacement of claim 1 of e.g. the main request by two claims 1 and 2 in auxiliary request 3 appears justified by the fact that the objection of lack of inventive step retained by the opposition division was relevant for polycarbonates (a) based on formula (1b) but not for the ones based on formula (1a) (since claim 1 of the then pending auxiliary request 4 was found to involve an inventive step). Therefore, the Board is satisfied that, in the circumstances of the present case, the filing of auxiliary request 3, and in particular the splitting of claim 1 of the higher ranked requests in two claims according to claims 1 and 2 of auxiliary request 3, constitutes a *bona fide* and timely reaction by the patent proprietor to the decision under appeal.

4.5 The respondent put forward that claim 2 of auxiliary request 3 had not been the object of the decision under appeal. Therefore, admitting auxiliary request 3 would

run against the stipulations of Article 12(2) RPBA, which was not allowable.

However, for the reasons indicated in section 4.4 above, the Board is satisfied that the filing of auxiliary request 3 at the outset of the appeal proceedings is a justifiable reaction to an issue addressed for the first time during the oral proceedings before the opposition division and for which it appears credible that the patent proprietor may have been taken by surprise or at least not have understood during said oral proceedings that that issue was decisive for the conclusion reached by the opposition division. In particular, the Board cannot identify a deliberate abuse of the procedure on the side of the appellant which would be detrimental to the procedural economy. It was also taken into account that the arguments put forward by the appellant in writing in support of the inventive step of claim 2 of auxiliary request 3 (statement of grounds of appeal: page 30) were similar to the ones brought forward for the higher ranked requests and did not lead to a substantial change of the case which would put the respondent at a disadvantage (no "fresh case" for the appellant).

4.6 For these reasons, the Board found it appropriate to make use of its discretion to admit auxiliary request 3 into the proceedings pursuant to Article 12(4) RPBA.

5. Allowability - Inventive step in view of D7 as the closest prior art

5.1 Distinguishing feature(s)

5.1.1 Claim 2 of auxiliary request 3 differs from claim 1 of the main request in the following features:

(a) The definition of polycarbonate (a) was limited to polycarbonates having structural units derived from compound(s) of formula (1b); and

(b) The ratio of the viscosity average molecular weight Mv(a) of the polycarbonate resin (a) to the viscosity average molecular weight Mv(b) of the polycarbonate resin (b), Mv(a)/Mv(b) should be in the specific range of at least 0.1 and at most 2.0.

5.1.2 It remained undisputed that, as indicated in section 3 above in respect of claim 1 of auxiliary request 2, above amendment (a) constituted no (additional) distinguishing feature over the disclosure of examples B to E of D7 and can, therefore, not contribute to an inventive step.

5.1.3 It was however in dispute between the parties whether or not above amendment (b) (Mv(a)/Mv(b) of at least 0.1 and at most 2.0) constituted an additional feature that effectively distinguished the subject-matter of claim 2 of auxiliary request 3 from the disclosure of examples B to E of D7. Whereas the respondent argued that said feature was implicitly met by examples B to E of D7 (rejoinder: page 19, section II.i, which was pursed at the oral proceedings before the Board), the appellant argued at the oral proceedings before the Board that D7 failed to disclose any information regarding the viscosity average molecular weights of the polycarbonates disclosed therein. Therefore, it could not be concluded that above amendment (b) was mandatorily met by the compositions according to examples B to E of D7, so the appellant.

In that respect, since the Board arrived at the conclusion that the subject-matter of claim 2 of auxiliary request 3 did not involve an inventive step in view of examples B to E of D7 even if the Mv(a)/Mv(b) feature of claim 2 of auxiliary request 3 were to constitute a feature effectively distinguishing the subject-matter being defined in said claim 2 from the disclosure of examples B to E of D7, it is hereinafter considered, to the appellant's benefit, that said Mv(a)/Mv(b) is a distinguishing feature.

5.2 Problem solved over the closest prior art

5.2.1 Similarly to the line of argument put forward for the main request, the appellant argued at the oral proceedings before the Board that the experimental data on file (examples of the patent in suit, D21 and D22) showed that the amendment made regarding the ratio of the viscosity average molecular weight of polycarbonates (a) and (b) led to the provision of scratch resistant polycarbonate compositions with an improved balance of hardness, melt viscosity, yellowness index and Charpy impact strength (statement of grounds of appeal: page 30, fifth to seventh full paragraphs).

5.2.2 However, for the same reasons as the ones outlined above for the main request, the Board considers that the comparative examples relied upon by the appellant do not illustrate the teaching of the closest prior art and that, for that reason, no improvement over said closest prior art was shown to be effectively achieved. Therefore, for the same reasons as for the main request, the objective problem solved over examples B to E of D7 (which constitute the closest prior art) by

claim 2 of auxiliary request 3 can only reside in the provision of an alternative polycarbonate resin composition.

5.2.3 In that respect, the respondent's view that the range of the ratio of viscosity average molecular weights now specified in claim 2 of auxiliary request 3 (above amendment (b)) was purely arbitrary and within the ambit of D7 (see molecular weight indicated in the table of paragraph 46 as well as in paragraphs 31 and 32 of D7), which appears reasonable to the Board, was not contested by the appellant. Therefore, following the same line of reasoning as the one indicated in sections 2.4.2 and 2.4.3 above, the feature of claim 2 of auxiliary request 3 defining a specific range for the ratio of the viscosity average molecular weight Mv(a) of the polycarbonate resin (a) to the viscosity average molecular weight Mv(b) of the polycarbonate resin (b), Mv(a)/Mv(b), constitutes an arbitrary choice within the ambit of D7, which can only be considered obvious.

5.3 For these reasons, claim 2 of auxiliary request 3 does not involve an inventive step in view of D7 as the closest prior art and auxiliary request 3, as a whole, is not allowable.

6. Since none of the appellant's requests is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Hampe M. Barrère

Decision electronically authenticated