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**Datasheet for the decision
of 30 January 2020**

Case Number: T 1071/17 - 3.2.05

Application Number: 11774024.1

Publication Number: 2632689

IPC: B29C49/00, B29K105/00

Language of the proceedings: EN

Title of invention:

Process for producing injection stretch blow molded polyolefin containers

Patent Proprietor:

Basell Poliolefine Italia S.r.l.

Opponent:

Chemische Fabrik Budenheim K.G.

Headword:

Relevant legal provisions:

EPC Art. 123(2), 56

RPBA Art. 12(4)

Keyword:

Amendments - added subject-matter (main request - no)
Inventive step (main request - no, auxiliary request III - yes)
Reformatio in peius (auxiliary requests I and II - yes)

Decisions cited:

G 0003/89, G 0011/91, G 0009/92, G 0002/10

Catchword:



Beschwerdekammern

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Chambres de recours

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Case Number: T 1071/17 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 30 January 2020

Appellant: Chemische Fabrik Budenheim K.G.
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
8 March 2017 concerning maintenance of the
European Patent No. 2632689 in amended form.**

Composition of the Board:

Chairman M. Poock
Members: P. Lanz
A. Jimenez

Summary of Facts and Submissions

- I. The opponent lodged an appeal against the interlocutory decision of the opposition division on the version in which European patent no. 2 632 689 meets the requirements of the European Patent Convention.
- II. During the opposition proceedings, the opponent had raised the grounds for opposition according to Article 100(a) EPC in conjunction with Articles 54 and 56 EPC (lack of novelty and lack of inventive step).
- III. Oral proceedings were held before the board of appeal on 30 January 2020.
- IV. The appellant (opponent) requested that the decision under appeal be set aside and that the patent be revoked.
- V. The respondent (patent proprietor) requested that the appeal be dismissed. In the alternative, it requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claims according to any of auxiliary requests I, II or III, all filed on 21 November 2017 together with the reply to the statement setting out the grounds of appeal.
- VI. The documents referred to in the appeal proceedings included the following:

E1: WO 2005/052049 A1

E2: WO 2006/018777 A1

E5: WO 2010/009832 A2

E11: Technical data sheet "Budit LM 16", Chemische Fabrik Budenheim KG, Budenheim, October 2008

E12: Safety data sheet "Iriotec", Merck KgaA, Darmstadt, 30 April 2015

E13: Safety data sheet "Copper(II) hydroxide phosphate", Sigma-Aldrich Chemie GmbH, Steinheim, 8 April 2013

E15: Material safety data sheet "Copper(II) phosphate", Alfa Aesar, Ward Hill (MA), 16 June 2009

E16: Excerpt from "Product Range", Chemische Fabrik Budenheim KG

VII. Claim 1 according to the main request reads as follows:

"Injection stretch blow molding process for preparing polyolefin containers, comprising the following steps:
1) preparing a preform by injection molding a polyolefin composition comprising a polymer (A) selected from ethylene polymers, propylene polymers and mixtures thereof, and a heat absorber (B);
2) supplying heat to reheat the preform prepared in step 1) and stretch blow molding said preform; characterized in that the heat absorber (B) is $\text{Cu}_2(\text{OH})\text{PO}_4$."

VIII. Compared to the main request, claim 1 of auxiliary request I is amended as follows:

"Injection stretch blow molding process for preparing polyolefin containers, comprising the following steps:

1) preparing a preform by injection molding a polyolefin composition comprising an ethylene homopolymer or copolymer having density equal to or greater than 0.945 g/cm³ ~~a polymer (A) selected from ethylene polymers, propylene polymers and mixtures thereof,~~ and a heat absorber (B);
2) supplying heat to reheat the preform prepared in step 1) and stretch blow molding said preform; characterized in that the heat absorber (B) is Cu₂(OH)PO₄ a copper hydroxide phosphate."

IX. In comparison with the main request, claim 1 of auxiliary request II is amended as follows:

"Injection stretch blow molding process for preparing polyolefin containers, comprising the following steps:
1) preparing a preform by injection molding a polyolefin composition comprising an ethylene homopolymer or copolymer having density equal to or greater than 0.945 g/cm³ and having F/E ratio values equal to or greater than 60 ~~a polymer (A) selected from ethylene polymers, propylene polymers and mixtures thereof,~~ and a heat absorber (B);
2) supplying heat to reheat the preform prepared in step 1) and stretch blow molding said preform; characterized in that the heat absorber (B) is Cu₂(OH)PO₄ a copper hydroxide phosphate."

X. Compared to the main request, claim 1 of auxiliary request III is amended as follows:

"Injection stretch blow molding process for preparing polyolefin containers, comprising the following steps:
1) preparing a preform by injection molding a polyolefin composition comprising an ethylene homopolymer or copolymer having density equal to or

greater than 0.945 g/cm³ ~~a polymer (A) selected from ethylene polymers, propylene polymers and mixtures thereof,~~ and a heat absorber (B);

2) supplying heat to reheat the preform prepared in step 1) and stretch blow molding said preform; characterized in that the heat absorber (B) is $\text{Cu}_2(\text{OH})\text{PO}_4$."

XI. The arguments of the appellant in the written and oral proceedings can be summarised as follows:

Main request, added subject-matter

The fact that the feature of claim 1 defining that the heat absorber (B) was $\text{Cu}_2(\text{OH})\text{PO}_4$ did not make any reference to the specific product trademark "Budite LM16" was contrary to the requirements of Article 123(2) EPC. In the original application as filed it was not directly and unambiguously disclosed that this reference could be omitted. Rather, it required some considerations by the skilled person to realise that any $\text{Cu}_2(\text{OH})\text{PO}_4$ could be used in the process of claim 1. In fact, as could be seen from documents E11, E12 and E13, $\text{Cu}_2(\text{OH})\text{PO}_4$ sold under the name of "Budite LM16" differed from other $\text{Cu}_2(\text{OH})\text{PO}_4$ products in its particle size distribution and purity, both of which had an important influence on the heat absorption properties relevant for the present invention. Moreover, documents E15 and E16 showed that, at the relevant date, not only $\text{Cu}_2(\text{OH})\text{PO}_4$ but all three copper compounds mentioned on page 2 of the application as filed were commercially available, *inter alia*, from Budenheim. Finally, it was noted that also for examples 1 and 2 given in the patent application $\text{Cu}_2(\text{OH})\text{PO}_4$ of the "Budite LM16"-type was used (see page 8 of the original application). In view of that, and according to the established case law

of the boards of appeal, generalising this specific teaching to any $\text{Cu}_2(\text{OH})\text{PO}_4$ product constituted an intermediate generalisation which went beyond what was directly and unambiguously disclosed in the application as filed.

Main request, inventive step

Document E2 was the closest prior art from which the subject-matter of claim 1 differed in that $\text{Cu}_2(\text{OH})\text{PO}_4$ was used as heat absorber instead of carbon black. The problem solved by this difference resided in avoiding a dark coloration of the final articles (see contested patent, paragraph [0007]). The further advantages of an improved wall thickness distribution and a wider processing window constituted bonus effects. The claimed solution of using $\text{Cu}_2(\text{OH})\text{PO}_4$ as heat absorber instead of carbon black and its advantages (very good heat absorption properties, preventing coloration of the moulded articles) was generally known from the prior art. In particular, document E1 (see page 2, lines 7 to 14 and 15 to 19, example 4 and Figure 2) disclosed that an heat absorber of the $\text{Me}_x(\text{PO}_4)_y(\text{OH})_z$ -type had outstanding heat absorption properties (thereby also allowing for a more energy efficient heating of the preforms) and avoided a dark coloration of the moulded articles (see E1, page 3, lines 1 to 12). Among the $\text{Me}_x(\text{PO}_4)_y(\text{OH})_z$ -type heat absorbers, $\text{Cu}_2(\text{OH})\text{PO}_4$ was presented as the preferred choice (see E1, page 4, first paragraph and claim 5). In fact, all examples in document E1 were directed to $\text{Cu}_2(\text{OH})\text{PO}_4$. This was a clear hint pointing the skilled person to the claimed solution. Moreover, document E1 (see page 3, lines 13 to 19 and claims 2 and 3) contained a list of polymers, including polyethylene and polypropylene, for which $\text{Cu}_2(\text{OH})\text{PO}_4$ could be used as an heat absorber;

this teaching was not altered by example 4, where $\text{Cu}_2(\text{OH})\text{PO}_4$ was combined with PET for establishing the material properties in a standardised set-up. The fact that polypropylene had a particularly low heat absorption when compared to PET (see document E2, page 1, third paragraph) provided a further incentive for choosing $\text{Cu}_2(\text{OH})\text{PO}_4$ as heat absorbing additive. In view of the teaching of document E1, a combination of documents E2 and E1 would (and not only could) guide the skilled person to the claimed invention.

Auxiliary requests I and II, admissibility

Compared with the request considered allowable by the opposition division, the last feature of claim 1 of the respondent's auxiliary requests I and II was generalised from "*the heat absorber (B) is $\text{Cu}_2(\text{OH})\text{PO}_4$* " to "*the heat absorber (B) is a copper hydroxide phosphate*". This was contrary the principle of prohibition of *reformatio in peius*. Therefore, auxiliary requests I and II were inadmissible.

Auxiliary request III, admission

Auxiliary request III should not be admitted into the appeal proceedings. According the jurisprudence of the boards of appeal, convergence was a requirement for admitting amended claim requests into the appeal proceedings. This condition was not met for auxiliary request III.

Auxiliary request III, inventive step

Document E1 related to injection stretch blow moulding of PET bottles (see E1, page 1, third paragraph) and represented the closest prior art for the subject-

matter of claim 1 of auxiliary request III. The claimed subject-matter differed from document E1 only in that the polymer was specified as comprising an ethylene homopolymer or copolymer having a density equal to or greater than 0.945 g/cm^3 . Since polyethylene was both lighter and cheaper than the PET material used in document E1, the objective technical problem to be solved was to provide an injection stretch blow moulding process for producing containers having a reduced density and lower costs. The claimed solution was rendered obvious by document E5, which also belonged to the technical field of injection stretch blow moulding. In particular, document E5 discussed the disadvantages of using PET and PP for blow moulded containers in terms of recycling (see E5, page 1, line 32 to page 2, line 8) and wall thickness distribution (see E5, page 2, lines 17 to 22) and proposed a two-step injection blow moulding process using HDPE (see E5, page 3, lines 16 to 24) in order to reduce the weight of the moulded containers (see E5, page 4, lines 7 to 12) and to improve their recyclability. It was explicitly stated that PET and HDPE were comparable in terms of shrinkage (see E5, page 3, lines 29 to 35) and that the existing injection moulds for PET preforms could also be used for HDPE (see E5, page 3, lines 35 and 36). Changing the plastic material did thus not require any investment in new moulding equipment. Consequently, document E5 motivated the skilled person to replace the PET material used in the process of document E1 with HDPE without having to expect any difficulties. The additive $\text{Cu}_2(\text{OH})\text{PO}_4$ used in the process of document E1 could be generally utilised as heat absorber independently of the type of polymer. The skilled person would therefore naturally combine it with the HDPE material proposed in document E5. For these reasons, the subject-matter of claim 1 of

auxiliary request III was rendered obvious by a combination of documents E1 and E5.

XII. The respondent's written and oral submissions may be summarised as follows:

Main request, added subject-matter

The penultimate paragraph on page 2 of the application as filed listed three specific examples of a heat absorber and identified these chemical compounds by their respective CAS number. Further, the paragraph stated that one of these compounds, namely $\text{Cu}_2(\text{OH})\text{PO}_4$, was sold by Budenheim under the trademark of "Budit LM16". The reader of the text was hence informed that one of these compounds was commercially available and one source for this compound was identified. Contrary to the appellant's assertions, this paragraph did not give the impression that the specific example was the product sold under the tradename "Budit LM16". The paragraph in question listed three chemical compounds and complemented the information with a purchase option for one of them. Accordingly, the amendment of claim 1 was directly and unambiguously derivable from the application as originally filed and did thus not introduce subject-matter which extended beyond the original content of the application.

Main request, inventive step

Document E2 represented the closest prior art, from which the subject-matter of claim 1 differed in that $\text{Cu}_2(\text{OH})\text{PO}_4$ was used as a heat absorber. The objective technical problem was to find a process for producing polyolefin containers by an injection stretch blow moulding process in which the obtained containers had

reduced variations in the wall thickness in combination with a large processing window, of course without having a dark coloration of the final articles. Documents E1 would not have prompted the skilled person to modify the disclosure of document E2 in a way to arrive at the subject-matter of claim 1, in the expectation of obtaining an improved injection stretch blow moulding process for ethylene polymers, propylene polymers or mixtures thereof which gave a better wall thickness distribution and had a wider processing window. Document E1 disclosed in its introductory portion that PET bottles could be prepared in an injection stretch blow moulding process. However, document E1 was silent on the wall thickness distribution, energy consumption and processing window, even for the PET process. In view of that, document E1 could clearly not point the skilled person to using $\text{Cu}_2(\text{OH})\text{PO}_4$ as an heat absorber in ethylene polymers, propylene polymers or mixtures thereof. Moreover, the examples did not relate to injection stretch blow moulding. Example 4 of document E1 was directed to small plates prepared by injection moulding. Hence, a combination of documents E2 and E1 would not render obvious the subject-matter of claim 1.

Auxiliary requests I and II, admissibility

The respondent did not wish to comment on the appellant's objection of a violation of the principle of prohibition of *reformatio in peius*.

Auxiliary request III, inventive step

Document E5 was a reasonable starting point for examining the question of inventive step. Injection stretch blow moulding was customarily done with PET or

PP, while processing HDPE in injection stretch blow moulding was difficult. Document E5 indicated a possibility of performing injection stretch blow moulding with a specific HDPE composition. This prior art teaching was reflected in comparative example 1 of the patent in suit (see Table 1 in paragraph [0058]) and had the disadvantage of a high scrap rate, i.e. a high percentage of defective bottles. The problem to be solved by the present invention thus was to improve the processing window and the cost effectiveness of injection blow moulding of HDPE containers. The claimed solution resided in adding $\text{Cu}_2(\text{OH})\text{PO}_4$ as a heat absorber to the HDPE polymer. Document E5 did not contain any indication to that effect. Therefore, a combination of documents E1 and E5 could not render obvious the subject-matter of claim 1 of auxiliary request III.

Reasons for the Decision

1. *Main request, added subject-matter*
- 1.1 Regarding the requirements of Article 123(2) EPC, the parties' dispute hinges on the question of whether or not the last feature of claim 1 defining that "*the heat absorber (B) is $\text{Cu}_2(\text{OH})\text{PO}_4$* ", which had been added to the claim during the opposition proceedings, extends beyond the content of the patent application as filed.
- 1.2 The "gold standard" (G 2/10, OJ EPO 2012, 376) for assessing compliance with Article 123(2) EPC requires that any amendment can be made only within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of these documents as filed (G 3/89, OJ EPO

1993, 117; G 11/91, OJ EPO 1993, 125). The content of the patent application as filed is not limited to what is explicitly stated but includes any teaching which is implicit for the person skilled in the art. The underlying idea is that after the amendment the skilled person must not be presented with new technical information (G 2/10, *supra*).

- 1.3 In the present case, an original disclosure relating to the contested amendment can be found at the bottom of page 2 of the description as filed:

"Specific examples of heat absorber (B) are: dicopper hydroxide phosphate $Cu_2(OH)PO_4$, (CAS No. 12158-74-6) sold by Budenheim with the trademark Budit LM16; copper pyrophosphate (CAS No. 10102-90-6); copper phosphate $Cu_3P_2O_8$, (CAS No. 7798-23-4)."

Moreover, the dicopper hydroxide phosphate ($Cu_2(OH)PO_4$) used for examples 1 and 2 on page 8 of the application as filed is of the "Budit LM16"-type.

- 1.4 It is observed that on page 2 of the application as filed, all three possible additives are clearly identified by their respective CAS registry number. Only for one of them (dicopper hydroxide phosphate $Cu_2(OH)PO_4$) a supplier and a brand name is indicated. Regarding the specific examples given in the patent, it is noted that all examples 1 to 8 are according to the invention and use dicopper hydroxide phosphate $Cu_2(OH)PO_4$ as a heat absorber. However, only for examples 1 and 2 "Budit LM16" is indicated as a brand name for $Cu_2(OH)PO_4$.

In view of the above, the overall teaching to the skilled person in the application as filed is that the

use of $\text{Cu}_2(\text{OH})\text{PO}_4$ as an heat absorbing additive causes the heat to penetrate more evenly and more quickly into the surface of the polyolefin containers. The direct and unambiguous disclosure in the whole of the application as filed is not limited to "Budit LM16" as being the only suitable $\text{Cu}_2(\text{OH})\text{PO}_4$ additive in view of its particle size distribution and purity, as argued by the appellant. Therefore, the introduction of the limitation "*the heat absorber (B) is $\text{Cu}_2(\text{OH})\text{PO}_4$* " into claim 1 does not go beyond the disclosure in the application as originally filed.

1.5 For these reasons, the board concludes that the subject-matter of claim 1 of the main request meets the requirements of Article 123(2) EPC.

2. *Main request, inventive step*

2.1 Both parties use document E2 as a starting point for discussing inventive step. It is common ground between the parties that the subject-matter of claim 1 of the main request differs from document E2 in that $\text{Cu}_2(\text{OH})\text{PO}_4$ is used as an heat absorber instead of carbon black.

2.2 Regarding the technical effect of this difference, both parties agree that the use of carbon black as an heat absorber has the disadvantage of easily imparting a dark coloration to the final articles (see paragraph [0007] of the patent) and that this drawback is avoided if $\text{Cu}_2(\text{OH})\text{PO}_4$ is used as an heat absorber instead of carbon black. Moreover, as pointed out by the respondent, the contested patent (see paragraph [0009] of the patent) presents an improved wall thickness distribution of the moulded bottles (leading to a higher top load), a higher energy efficiency during the

step of reheating the preforms during the injection stretch blow moulding process, and a larger processing window as further advantages of selecting specific metal compounds (such as $\text{Cu}_2(\text{OH})\text{PO}_4$) as heat absorbers.

- 2.3 The appellant base their inventive step attack on the technical effect of avoiding a dark coloration of the final articles; the further alleged advantages (improved wall thickness distribution of the moulded bottles, larger processing window) are considered as mere bonus effects.

According to the established case law of the Boards of Appeal (see Case Law of the Boards of Appeal of the European Patent Office, 9th edition July 2019, I.D. 10.8.), an additional effect achieved inevitably by the skilled person on the basis of an obvious measure without any effort on their part represents a bonus which can normally not substantiate inventive step, even as a surprising effect. In view of this principle, the board considers it appropriate to examine the merits of the appellant's inventive step objections on the basis of the technical effect of avoiding a dark coloration, which is brought forward by both parties and which the appellant puts particular emphasis on.

Therefore, the objective technical problem to be solved can be seen in avoiding a dark coloration of the final articles.

- 2.4 Regarding the obviousness of the claimed solution, the appellant refers, *inter alia*, to document E1, which is directed to thermoplastic materials with high infrared absorption. In its introductory portion (see E1, pages 1 and 2), the document refers to PET bottles, made in particular by injection stretch blow moulding,

containing, *inter alia*, carbon black as heat absorber. The latter has the disadvantage of imparting a dark coloration to the final articles (see E1, page 2, second paragraph). In order to avoid this drawback, document E1 proposes to use a $\text{Me}_x(\text{PO}_4)_y(\text{OH})_z$ -type heat absorber which does not noticeably impair the polymer's transparency (see E1, page 3, first paragraph). All examples of document E1 relate to $\text{Cu}_2(\text{OH})\text{PO}_4$ as heat absorber. In example 4, the energy absorption of injection moulded PET parts with either $\text{Cu}_2(\text{OH})\text{PO}_4$ or carbon black as heat absorbers are tested and compared. As shown in Figure 2, PET parts with $\text{Cu}_2(\text{OH})\text{PO}_4$ have a higher absorption in the infrared spectrum than those with carbon black, while having a lower absorption (and thus a higher transparency) in the visible spectrum (see E1, Figure 2 and page 7, last paragraph). It is also noted that the list of possible polymers in document E1 includes not only PET but also polyethylene and polypropylene (see E1, page 3, second paragraph). Starting from the process of injection stretch blow moulding polypropylene bottles with carbon black of document E2, document E1 therefore points the skilled person to the claimed solution of selecting $\text{Cu}_2(\text{OH})\text{PO}_4$ as heat absorber for the polypropylene material and the process of document E2.

- 2.5 For the sake of completeness, the board adds that it would arrive at the same conclusion if the inventive step assessment were based on the objective technical problem proposed by the respondent, i.e. finding a process for producing polyolefin containers by an injection stretch blow moulding process in which the obtained containers had reduced variations in the wall thickness in combination with a large processing window, of course without having a dark coloration of the final articles. In fact, document E1 (see E1,

Figure 2 and page 7, last paragraph) not only teaches that using $\text{Cu}_2(\text{OH})\text{PO}_4$ as heat absorbing additive instead of carbon black reduces the coloration of the plastic material, as explained above under point 2.4, but also that it causes a higher absorption in the infrared spectrum, i.e. a higher energy absorption. This inevitably leads to a more uniform heating of the preforms and, in turn, to an improved wall thickness distribution of the moulded bottles and a larger processing window for the moulding process. Also against this backdrop, document E1 points the skilled person to the claimed solution of selecting $\text{Cu}_2(\text{OH})\text{PO}_4$ as heat absorber in the process of document E2.

2.6 For these reasons, the subject-matter of claim 1 of the main request is not based on an inventive step (Articles 52(1) and 56 EPC).

3. *Auxiliary requests I and II, admissibility*

3.1 If the opponent is the sole appellant against an interlocutory decision by an opposition division maintaining the patent in amended form, the patent proprietor as respondent is primarily restricted in the appeal proceedings to defending the patent as thus maintained in order to comply with the principle of prohibition of *reformation in peius* (see G 9/92, OJ EPO 1994, 875). Amendments proposed by the patent proprietor (as party to the proceedings as of right under Article 107 EPC, second sentence) may be rejected by the board as inadmissible if they are neither appropriate nor necessary (see G 9/92, *supra*, headnote II).

3.2 In the present case, claim 1 of auxiliary requests I and II broadens the specification of the heat absorber

from $\text{Cu}_2(\text{OH})\text{PO}_4$ (as defined in the version of claim 1 considered allowable by the opposition division) to copper hydroxide phosphate in general. This amendment of claim 1 according to auxiliary requests I and II is neither appropriate nor necessary for defending the version in which the contested patent was maintained by the opposition division. It therefore violates the principle of prohibition of *reformatio in peius*.

3.3 It follows that amended auxiliary requests I and II have to be rejected as inadmissible in accordance with decision G 9/92 (*supra*).

4. *Auxiliary request III, admission*

4.1 Auxiliary request III submitted together with the reply to the statement setting out the grounds of appeal corresponds to auxiliary request III filed during the opposition proceedings. The appellant argues that this request should not be admitted into the appeal proceedings since it was not convergent with auxiliary request II.

4.2 According to the transitional provisions of Article 25(2) RPBA 2020, Article 12(4) RPBA 2007 applies to the question of admission of auxiliary request III. However, the provisions of Article 12(4) RPBA 2007 do not give the board any discretion not to admit a request which was presented in the first instance proceedings (and not considered inadmissible by the department of first instance).

4.3 In view of this, auxiliary request III forms part of, and has thus to be considered in, the present appeal proceedings.

5. *Auxiliary request III, inventive step*

5.1 Both parties agree that document E1 is a reasonable starting point for assessing the inventive merits of the subject-matter of claim 1 of auxiliary request III. The parties also concur that claim 1 differs from document E1 in that the polymer is specified as comprising an ethylene homopolymer or copolymer having a density equal to or greater than 0.945 g/cm³.

5.2 The appellant indicates that, based on this differing feature, the objective technical problem to be solved was to provide an injection stretch blow moulding process for producing containers having a reduced density and lower costs.

5.3 Regarding the question of obviousness of the claimed subject-matter, the appellant relies on document E5. They argue that this prior art already used an ethylene homopolymer or copolymer having a density equal to or greater than 0.945 g/cm³ in an injection stretch blow moulding process, which would render obvious the claimed solution. However, the board observes that, even if one were to follow this argument, there is no reason apparent from the cited documents why the skilled person would then deviate from the teaching of document E5 and add to the suggested HDPE composition of document E5 Cu₂(OH)PO₄ as an additive. Document E1 specifically discloses Cu₂(OH)PO₄ in combination with PET (see example 4). The fact that this document (see E1, page 3, second paragraph) also contains a list of polymers including polyethylene in general, for which metal phosphates of the Me_x(PO₄)_y(OH)_z-type could be used as additives, does not constitute a teaching to combine Cu₂(OH)PO₄ with an ethylene homopolymer or

copolymer having a density equal to or greater than 0.945 g/cm³ in the injection stretch blow moulding process of document E5. Consequently, starting from document E1 the board is not persuaded that document E5 would, without hindsight, render obvious the subject-matter of claim 1.

- 5.4 In view of these considerations, the subject-matter of claim 1 of auxiliary request III is based on an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to maintain the patent with the following claims and a description to be adapted thereto:

Claims No. 1 to 6 according to auxiliary request III filed on 21 November 2017 with the reply to the statement setting out the grounds of appeal.

The Registrar:

The Chairman:



L. Malécot-Grob

M. Poock

Decision electronically authenticated