

**Internal distribution code:**

- (A) [ - ] Publication in OJ
- (B) [ - ] To Chairmen and Members
- (C) [ - ] To Chairmen
- (D) [ X ] No distribution

**Datasheet for the decision  
of 24 July 2020**

**Case Number:** T 0460/17 - 3.3.03

**Application Number:** 10152208.4

**Publication Number:** 2239288

**IPC:** C08G18/40, C08G18/62,  
C08G18/79, C09D175/04

**Language of the proceedings:** EN

**Title of invention:**

Two-component polyurethane clear coat kit system

**Patent Proprietor:**

Coatings Foreign IP Co. LLC

**Opponent:**

BASF Coatings GmbH

**Relevant legal provisions:**

EPC Art. 56  
RPBA Art. 12(4), 13(1)

**Keyword:**

Inventive step - (no)  
Late-filed auxiliary requests - admitted (no)



**Beschwerdekammern**

**Boards of Appeal**

**Chambres de recours**

Boards of Appeal of the  
European Patent Office  
Richard-Reitzner-Allee 8  
85540 Haar  
GERMANY  
Tel. +49 (0)89 2399-0  
Fax +49 (0)89 2399-4465

Case Number: T 0460/17 - 3.3.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.03**  
**of 24 July 2020**

**Appellant:** BASF Coatings GmbH  
(Opponent) Glasuritstrasse 1  
48165 Münster (DE)

**Representative:** Leifert & Steffan Patentanwälte PartG mbB  
Patentanwälte  
Postfach 10 40 09  
40031 Düsseldorf (DE)

**Respondent:** Coatings Foreign IP Co. LLC  
(Patent Proprietor) The Corporation Trust Company  
Corporation Trust Center  
1209 Orange Street  
Wilmington, DE 19801 (US)

**Representative:** LKGLOBAL  
Lorenz & Kopf PartG mbB Patentanwälte  
Brienner Straße 11  
80333 München (DE)

**Decision under appeal:** **Decision of the Opposition Division of the European Patent Office posted on 9 December 2016 rejecting the opposition filed against European patent No. 2239288 pursuant to Article 101(2) EPC.**

**Composition of the Board:**

**Chairman** M. C. Gordon  
**Members:** D. Marquis  
R. Cramer

## **Summary of Facts and Submissions**

- I. The appeal of the opponent lies from the decision of the opposition division to reject the opposition against European patent No. 2 239 288.
- II. A notice of opposition against the patent was filed in which revocation of the patent was requested.
- III. The decision of the opposition division was based on the claims as granted as the sole request.
- IV. Claim 1 of the main request (claim 1 as granted) read as follows:
- "1. A two-component polyurethane clear coat kit system consisting of:
- (1) a binder component comprising melamine resin and having a solids content of 42 to 50 wt.-% comprising at least one hydroxyl-functional binder and a volatile organic content of 50 to 58 wt.-%, and
- (2) a polyisocyanate crosslinker component having a solids content of 66 to 70 wt.-% and a volatile organic content of 30 to 34 wt.-%, wherein the solids content of the polyisocyanate crosslinker component comprises a free polyisocyanate solids content consisting of 75 to 100 wt.-% of at least one polyisocyanate of the 1,6-hexane diisocyanate isocyanurate type and of 0 to 25 wt.-% of at least one polyisocyanate of the isophorone diisocyanate isocyanurate type, wherein the sum of the respective wt.-% in each case totals 100 wt.-%".
- V. The following documents were cited in the decision of the opposition division (whereby the opposition division designated the documents as D1 etc, whilst the

parties in their submissions employed the designation "E1" etc. This latter convention will be employed by the Board:

E1: EP 1 106 636 A1

E2: EP 0 991 729 B1

E3: WO 01/38415 A1

E4: WO 00/55270 A1

E5: WO 03/070844 A1

E6: EP 1205503 A1

E7: DIN EN ISO 3251

E8: WO 2007/041633 A1

E9: BASF - Technical information - Basonat HI grades

E10: Bayer Material Science - Products and Properties  
Desmodur/Desmophen for coatings

VI. The decision of the opposition division, as far as it is relevant to the present case, can be summarized as follows:

- Considering that documents E8, E9 and E10 had been filed more than 4 months before the oral proceedings and having regard to their low technical complexity, it was reasonable to admit these documents into the proceedings even if they could be considered as late filed.
- Among the documents E1, E2, E3, E4, E6, E8 and E9 (designated in the decision as "D1" etc.) considered as closest prior art, only E2, E4, E6 and E8 appeared to deal with a problem that was close to that of the patent in suit. Among these documents, E2 was the closest prior art since it had the least number of distinguishing features in comparison with claim 1 of the patent in suit.

- E2 and in particular its example 1 differed from claim 1 of the patent in suit in that the solids content of the cross-linker was not comprised between 66 and 70 wt.%, the volatile organic content of the cross-linker was not comprised between 30 and 34 wt.% and the melamine was not the binder component.
- No effect was shown for the use of melamine in the binder component. However the examples of the patent in suit showed that a lower amount of solids in the polyisocyanate component and a higher amount of volatile organic compound resulted in a higher distinctness of image (DOI) and lower dullness as compared to compositions which could be considered as representative of the closest prior art.
- The objective problem was to provide a clearcoat which retained its optical properties when an interruption in the application of the coating occurred.
- None of the cited documents suggested that using a polyisocyanate component having a solids content comprised between 66 and 70 wt.% was the solution to the problem posed. Claim 1 thus involved an inventive step.

VII. The opponent (appellant) lodged an appeal against that decision. Document E11 (Extract from Kittel, "Lehrbuch der Lacke und Beschichtungen", S.Hirzel Edition, 2006, pages 296 and 297) was submitted with the statement of grounds of appeal.

VIII. The patent proprietor (respondent) filed a rejoinder to the statement of grounds of appeal.

IX. In a further letter dated 12 March 2020, the respondent filed documents E12-E14 as well as auxiliary request 1.

E12: Technical datasheet SETAMINE® US-146 BB-72  
(October 2018)

E13: Technical datasheet SETAL® 91715 SS-55 (November 2012)

E14: Technical datasheet BYK-310 (November 2012)

Claim 1 of auxiliary request 1 differed from claim 1 of the main request by incorporation of the features of claim 2 thereof, i.e. in that the definition of the binder component (1) was supplemented by the following sentence "wherein the solids content of the binder component has a hydroxyl number originating from the at least one hydroxyl-functional binder of 110 to 160 mg KOH/g".

X. Oral proceedings were held on 24 July 2020 in the presence of both parties.

XI. The appellant's arguments, insofar as relevant to the decision, may be summarised as follows:

Admittance of E12-E14

(a) E12-E14 were not prior art documents since they were all dated after the priority date of the patent in suit. These documents also did not establish the composition of the commercial products disclosed in the examples of the patent in suit. E12-E14 should not be admitted into the

proceedings.

Main request - Inventive step

- (b) E1 related to two-component polyurethane clearcoat compositions that exhibited high gloss and gloss retention. E1 also taught binders containing melamine for a better appearance of the coated surface. In that respect, E1 was a reasonable closest prior art document. E1 was in particular more relevant than E2 as closest prior art.
  
- (c) Example 2 of E1 disclosed a two-component polyurethane clear coat kit system comprising a binder (part 1) and a crosslinker component (part 2). The binder comprised an hydroxyl functional component (Polyol 1) and melamine. The solid content of the binder was calculated to be 53.95 wt.-% on the basis of the data available in E1 for the components of the binder. The crosslinker comprised a polyisocyanate (polyisocyanate 4) made from 63.3 wt.-% of polyisocyanate 2 (polyisocyanate of the isophorone diisocyanate isocyanurate type) and 22.7 wt.-% of polyisocyanate 1 (polyisocyanate of the 1,6-hexane diisocyanate isocyanurate type). The solid content calculated for the crosslinker was 67.01 wt.-%.
  
- (d) The system according to claim 1 of the main request differed from the system of example 2 of E1 in the solid content of the binder (42-50 wt.-%), in the volatile organic content (50-58 wt.-%) and in that the free polyisocyanate solids content consisted of 75 to 100 wt.-% of at least one polyisocyanate of the 1,6-hexane diisocyanate isocyanurate type. Since the solid content and the volatile organic

content of the binder were related to one another, claim 1 of the main request only differed from example 2 of E1 by two features.

- (e) The patent in suit did not establish that any of these two differences resulted in any effect. The problem was thus to provide alternative two-component polyurethane coating systems.
- (f) The variation of the solid content of the binder was routine experimentation for a skilled person. The reduction of the solid content of the binder from 53.95 wt.-% to a value in the range according to claim 1 of the main request (42-50 wt.-%) was in any case shown in the composition of example 6 of E1 for which the solid content was 49.8 wt.-%.
- (g) Likewise, the variation of the content of polyisocyanate of the 1,6-hexane diisocyanate isocyanurate type in the crosslinker was standard experimentation for a skilled person. The use of an amount of 1,6-hexane diisocyanate isocyanurate of 100 wt.-% was also taught in paragraph 11 of E1. E9 also suggested the use of that amount in the crosslinker component of coating compositions.
- (h) Claim 1 of the main request thus lacked an inventive step over E1.

#### Admittance of auxiliary request 1

- (i) The filing of auxiliary request 1 after the communication of the Board was not justified since E1 and in particular is example 2 had already been identified as the closest prior art in the first instance proceedings and in the statement of



grounds of appeal. Auxiliary request 1 should have been filed with the rejoinder to the statement of grounds of appeal. That request should not be admitted into the appeal proceedings.

XII. The respondent's arguments, insofar as relevant to the decision, may be summarised as follows:

Admittance of E12-E14

(a) E12-E14 had been filed in reply to a question raised in the communication of the Board relating to the solids content of the binder in the examples of the patent in suit. The information in these documents established that the compositions of the examples were according to claim 1 of the main request. E12-E14 should be admitted into the proceedings.

Main request - Inventive step

(b) The technical field of the opposed patent concerned two-component polyurethane clear coat kit systems but it was clearly stated in paragraph 1 of the opposed patent that the field of the invention was the more specific field of two-component polyurethane clear coat kit systems used in processes for the preparation of a clear coat of an automotive OEM multi-layer coating. In particular, the substrate surface of concern in the opposed patent was a surface obtained in a spraying process during which interruptions of the spraying occurred. This problem was not addressed in E1 which emphasised the acid etch resistance and the early scratch resistance of the coatings. Within E1, example 2 had the lowest scratch resistance.

The choice of example 2 as the starting point for the assessment of inventive step had to be seen as based on hindsight.

- (c) Claim 1 of the main request differed from Example 2 of E1 in three features, the solid content of the binder, the amount of 1,6-hexane diisocyanate isocyanurate type and the amount of isophorone diisocyanate isocyanurate type in the crosslinker component.
- (d) The examples of the patent in suit showed that the combination of all features of claim 1 of the main request displayed acceptable visual impression even when the spraying of the coating had been interrupted. The problem was thus to provide a kit that overcame the problem arising from interruptions in the spray process.
- (e) There was no motivation for the skilled person to modify these distinguishing features to arrive at claim 1 of the main request. Moreover, the skilled person could expect that significantly increasing the amount of polyisocyanate of the 1,6-hexanediisocyanate-isocyanurate-type by at least nearly around 2.5 fold and at the same time, significantly decreasing the amount of polyisocyanate of the isophoronediiisocyanate-isocyanurate-type to nearly around one third of the original amount would dramatically change the overall properties of the resulting polyisocyanate mixture for instance as regards reactivity and physical properties of the obtained products. Hence, the skilled person would certainly have refrained from performing such significant

modifications just by routine experimentation.

- (f) Even if the opposed patent did not show any technical effect attributed to one particular of the differing features of the composition of Example 2 of E1, the modifications as such were not obvious from E1 as the specific combination of the differing features also contributed to the technical effect achieved by the compositions of the opposed patent as shown by the examples contained therein. Moreover, the argument that the selection of a solids content within such a narrow range as defined in the opposed patent for the binder component as being obvious without D1 providing any indication to do so was clearly based on hindsight. Also, paragraph 14 of E1 taught away from a reduction of the solids content.
- (g) The very same considerations applied for the significant modifications necessary as regard the relative amount of the different polyisocyanate components contained in the solids of the polyisocyanate crosslinking component. In that regard the amounts of isophorone diisocyanate isocyanurate and 1,6-hexanediisocyanate-isocyanurate were independent from one another in E1 since the crosslinker could contain further solids, as suggested in paragraph 8 of E1.
- (h) Claim 1 of the main request was therefore inventive over E1.

Admittance of auxiliary request 1

- (i) Auxiliary request 1 had been filed in response to the communication of the Board which for the first

time gave substantial weight to E1 as the document representing the closest prior art. Since many more documents were cited as possible closest prior art documents in the statement of grounds of appeal, it would not have been economical to reply to all possible objections of lack of inventive step at that stage. Also, claim 1 of auxiliary request 1 resulted from a combination of granted claims meaning that the modified claim was easy to understand as were its ramifications in the context of the appeal. Auxiliary request 1 should be admitted into the proceedings.

XIII. The appellant requested that the decision under appeal be set aside and that the patent be revoked. It further requested the admittance of document E11 into the proceedings and the non admittance of E12-E14.

XIV. The respondent requested that the appeal be dismissed and that document E11 not be admitted into the proceedings. It further requested that auxiliary request 1 and documents E12-14, all filed with the letter of 12 March 2020, be admitted into the proceedings.

## **Reasons for the Decision**

Main request

1. Admittance of documents

1.1 Documents E12-E14 were submitted by the respondent with their letter of 12 March 2020. These documents are three technical datasheets of the commercially available compounds Setamine® US-146 BB-72 (E12), Setal® 91715 SS-55 (E13) and BYK® 310 (E14).

Commercially available compounds bearing these names were used in the binder of the examples of the patent in suit. E12-E14 disclose the solids content of these compounds and allow the calculation of the solids content of the binder used in the examples of the patent in suit, a parameter that is otherwise not disclosed nor is derivable from the patent in suit. It is apparent that documents E12-E14 were filed in reply to a question raised by the Board in section 9.9.1 of the communication dated 23 January 2020. The Board finds it justified to exercise the discretion entrusted to them under Article 13(1) RPBA 2007 to admit E12-E14 into the proceedings.

1.2 The admittance of E11 into the proceedings, a document filed by the appellant with their statement of grounds of appeal, was also in dispute between the parties. That document however was cited with respect to the objection of lack of sufficiency of disclosure only. In view of the negative decision on inventive step with regard to the main request and in view of the non admittance of auxiliary request 1 into the proceedings, a decision on the admittance of E11 is not necessary.

2. Inventive step

2.1 The opposition division considered in the contested decision that among the documents E1, E2, E3, E4, E6, E8 and E9 that had been cited as possible closest prior art documents by the opponent, E2 was the most relevant because it dealt with the same subjective problem of improving the appearance of the clearcoat and/or the reduction of the occurrence of optical defects in the coating (section 5.2.9 of the decision) and because that document had the most features in common with claim 1 of the main request (section 5.2.15 of the

decision). E1 on the contrary could not qualify as closest prior art since that document dealt with an entirely different subjective problem (section 5.2.16 of the decision).

- 2.2 The appellant considers in appeal that any of E1, E6 and E8 but not E2 represented the closest prior art. The first question the Board had to address was thus whether it was justified to consider E1, and in particular the clearcoat composition of its example 2, as the closest prior art for claim 1 of the main request.
- 2.3 The patent in suit relates to a two-component polyurethane clear coat kit system the components of which can be statically mixed to form a two-component polyurethane clear coat composition which can be used in a process for the preparation of a clearcoat layer of an automotive OEM (original equipment manufacture) multi-layer coating (paragraph 1). The polyurethane clear coat kit system according to the patent in suit is applied to the substrate by spraying (paragraphs 3 and 40).
- 2.4 It was established in the decision of the opposition division that E1 belonged to the same technical field as the patent in suit (section 5.2.9 of the decision), as can also be derived from paragraphs 2, 6 and 29 of E1 which disclose that the polyurethane two-component coating compositions according to E1 can be applied by spraying and mention the topcoat automotive industry.
- 2.5 The closest prior art for the purpose of assessing inventive step is generally that which corresponds to a purpose or technical effect similar to that of the invention and requiring the minimum of structural and

functional modifications (Case Law of the Boards of Appeal, 9th edition 2019, I.D.3.1). In that regard, it is apparent from section 2.4 above that E1 is concerned with the same general purpose as the patent in suit, namely the provision of two-component polyurethane clear coat kit systems that are applied by spraying and can be used in the automobile industry. Also, it is apparent from E1 that one of the objects of the two-component coating composition disclosed in that document concerned the appearance of the clear coat, as exemplified by the etch and scratch resistance of the applied clear coat. Appearance of the clear coat is also a property that is important in the patent in suit (paragraph 47). The fact that the aim of E1 is primarily the acid etch resistance and scratch resistance of the clear coat does not render E1 less relevant to the polyurethane two-component clear coat kit system of the patent in suit. The opposition division dismissed E1 as a document that could represent the closest prior art on the grounds that it dealt with an entirely different problem. In the present case, the Board finds that the assessment of the opposition division that the problem addressed in E1 was only limited to etch and scratch resistance is too restrictive and consequently unjustified, in particular in view of paragraph 31 of E1 which indicates that the compositions according to E1 not only possess etch and scratch resistance, but are also light-fast and colour-stable and have high gloss. Under these circumstances, the Board finds that the choice of E1 as closest prior art is not unreasonable.

2.6 Example 2 of E1 concerns a two-component coating composition comprising a binder component (Part 1) comprising a melamine resin and having a calculated solids content of 53.95 wt.-%, a volatile organic

content of 46.05 wt.-% as well as a polyisocyanate crosslinker (Part 2) that is a mixture of two polyisocyanate components (polyisocyanate 4) with a total solids content of 67.01 wt.-% (solids contents as calculated by the appellant, second and third paragraphs of section 6.6.1 on page 12 of the statement of grounds of appeal and which was not disputed by the respondent). The part of the total solids content of the crosslinker component resulting from the polyisocyanate of 1,6-hexane diisocyanate (polyisocyanate 1) is 33.89 wt.-% and the part of the total solids content of the crosslinker component resulting from the polyisocyanate of isophorone diisocyanate (polyisocyanate 2) is 66.11 wt.-% (as calculated by the respondent, first paragraph on page 20 of the reply to the statement of grounds of appeal, not contested by the appellant).

2.7 While claim 1 of the main request defines separate ranges for both solids content and volatile organic content of both the binder and the crosslinker parts of the polyurethane two-component coating compositions, it is apparent from the patent in suit (paragraph 12) and from its examples, as well as from the examples of E1, that the values of the solids content and volatile organic content in each of the binder and crosslinker add up to 100 wt.-% and thus are not independent of each other.

2.8 Thus, even if claim 1 of the patent in suit formally differs from the coating composition of example 2 of E1 in the solids content of the binder component (42-50 wt.-% according to claim 1 of the main request) and in the volatile organic content of the binder component (50-58 wt.-% according to claim 1 of the main request), the solids content and the volatile organic content in



reality constitute only one distinguishing feature over example 2 of E1.

2.9 Claim 1 of the main request further differs from example 2 of E1 in the amount of polyisocyanate of 1,6-hexane diisocyanate (75-100 wt.-% according to claim 1 of the main request) in the free polyisocyanate solids content of the crosslinker (2) and in the amount of polyisocyanate of isophorone diisocyanate (0-25 wt.-% according to claim 1 of the main request) in the free polyisocyanate solids content of the crosslinker (2).

2.10 While the definition of the composition of the polyisocyanate crosslinker component (2) according to claim 1 of the main request permits the presence of multiple (further) compounds, it is apparent from the wording of claim 1 that what is referred to in that claim as the "free polyisocyanate solids content" consists of the polyisocyanate of 1,6-hexane diisocyanate isocyanurate and of polyisocyanate of the isophorone diisocyanate isocyanurate only and that their contents add up to a total of 100 wt.-%.

2.11 In that regard and in an analogous manner as for the solids content and volatile organic content defining the components of claim 1 of the main request, even if claim 1 of the patent in suit formally contains two ranges defining the amounts of polyisocyanate of 1,6-hexane diisocyanate isocyanurate and of polyisocyanate of the isophorone diisocyanate isocyanurate as part of the free polyisocyanate solids content, the amount of these components ultimately constitutes one distinguishing feature over example 2 of E1.

2.12 It follows from the above points 2.6 to 2.11 that claim 1 of the main request differs from example 2 of E1 in

two features, i.e. in the solids content of the binder component and in the amount of polyisocyanate of 1,6-hexane diisocyanate isocyanurate in the free polyisocyanate solids content of the crosslinker.

2.13 It was argued (see section XII.(d), above) that example 2 of E1 would not constitute a reasonable starting point within E1 since the properties of the clear coat obtained in that example were the worst among all the examples reported in the table on page 9 of E1. There is however no reason why the most relevant starting point within the closest prior art E1 should be the composition providing the best overall properties. While the composition of example 2 of E1 is not the composition having the best scratch resistance according to the table of page 9, that composition is nonetheless a sprayable polyurethane two-component composition that is according to the teaching of E1 and which is structurally close to the compositions according to claim 1 of the main request. In that regard, the composition of example 2 is not an unrealistic or unreasonable starting point within the closest prior art E1.

2.14 As to the problem solved over the closest prior art, it has to be determined whether the examples of the patent in suit show an effect resulting from the distinguishing features taken alone or in combination with one another. In that regard, it was made plausible with the data provided in the technical datasheets E12-E14 that the solids content of the binder disclosed in paragraph 43 of the patent in suit was 48.2 wt.-% (first paragraph on page 12 of the letter of 12 March 2020), i.e. the binder is according to claim 1 of the main request (solids content of 42-50 wt.-%). Since that binder was used in all the examples of the patent

in suit and it was otherwise not shown that the selection of a binder having a solids content in the range defined in claim 1 of the main request was advantageous over that according to example 2 of E1 (solids content of 53.95 wt.-%), there is no example in the patent in suit that could establish the existence of an effect attributable to the range of the solids content of the binder defined in claim 1 of the main request.

2.15 The examples of the patent in suit also do not establish the presence of an effect resulting from the amount of polyisocyanate of 1,6-hexane diisocyanate isocyanurate in the free polyisocyanate solids content of the crosslinker as defined in claim 1 of the main request. The respondent argued that it was the combination of all the features of claim 1 of the main request which resulted in an improved appearance of the two-component polyurethane clear coat kit system. There is however no evidence in the patent in suit that the combination of a binder having a solids content according to claim 1 of the main request and the amount of polyisocyanate of 1,6-hexane diisocyanate isocyanurate in the free polyisocyanate solids content of the crosslinker or with any other features of claim 1 is linked to any effect that was not exhibited by the composition of example 2 of E1.

2.16 According to the case law of the boards of appeal, alleged advantages to which the patent proprietor merely refers, without offering sufficient evidence to support the comparison with the closest prior art, cannot be taken into consideration in determining the problem underlying the invention and therefore in assessing inventive step (Case Law of the Boards of Appeal, 9th Edition, July 2019, I.D.4.2). In that

respect the definition of the solids content of the binder in the range of 42-50 wt.-% and the amount of polyisocyanate of 1,6-hexane diisocyanate isocyanurate in the free polyisocyanate solids content of the crosslinker according to claim 1 of the main request is seen as a mere aggregation of features for which no effect was shown.

- 2.17 Under these circumstances the only problem that can be formulated with respect to example 2 of E1 is the provision of further two-component polyurethane clear coat kit systems.
- 2.18 It must then be determined whether the solution of this problem provided in claim 1 of the patent in suit is inventive over the cited prior art documents.
- 2.19 The solids content of the binder of the two-component polyurethane clear coat kit system according to example 2 of E1 was calculated to be 53.95 wt.-%, and thus above the range of 42-50 wt.-% defined in claim 1 of the main request. E1 provides a definition of the compound having at least two isocyanate-reactive groups a) according to claim 1 of that document which represents the binder of the composition in paragraphs 15 to 26.
- 2.20 The components of the binder and their amounts are discussed in this passage but in E1 no limitation of the solids content of the binder is given. In that regard, any solids content can be envisaged by the skilled person as long as it makes technical sense in the context of the teaching of E1 in general and example 2 thereof in particular. It was not shown that a decrease of the solids content of the composition according to example 2 of E1 from 53.95 wt.-% to within

the range of 42-50 wt.-% would impact the two-component polyurethane clear coat kit systems of E1 in any way. In fact, example 6 of E1 discloses a two-component polyurethane clear coat kit system with a binder comprising a melamine resin (melamine 1) and an hydroxyl-functional component (Polyol 1) for which the solids content was calculated by the appellant to be 49.8 wt.-% (first paragraph of page 14 of the statement of grounds of appeal), i.e. according to claim 1 of the main request. E1 therefore suggests that the use of a binder having a solids content according to claim 1 of the main request was an alternative to the binder of example 2 of that document. The use of a binder with a solids content, and therefore also a volatile organic content, according to claim 1 of the main request is not inventive over E1.

2.21 The polyisocyanate component of the two-component polyurethane clear coat kit systems according to E1 is discussed in paragraphs 8-11 of that document. The amount of polyisocyanate of 1,6-hexane diisocyanate isocyanurate in the free polyisocyanate solids content of the crosslinker of example 2 of E1 is 33.89 wt.-%. That amount is generally not limited in E1; in fact, paragraph 11 discloses that preferred polyisocyanate adducts that form the crosslinker can be isocyanurate group-containing polyisocyanates prepared from 1,6-hexamethylene diisocyanate "and/or" isophorone diisocyanate, implying that the amount of 1,6-hexamethylene diisocyanate relative to the isophorone diisocyanate is not particularly limited and that 1,6-hexamethylene diisocyanate can be used alone, i.e. in an amount of 100 wt.-% according to claim 1 of the main request. In that regard, the use of an amount of polyisocyanate of 1,6-hexane diisocyanate isocyanurate in the free polyisocyanate solids content of the

crosslinker of 100 wt.-% is obvious in view of E1 alone.

2.22 Also, since the solids content of the binder component and the amount of a 1,6-hexane diisocyanate isocyanurate in the crosslinker in combination were not shown to impact the properties of two-component polyurethane clear coat kit systems, their combination as defined in claim 1 of the main request is also not seen as inventive.

2.23 The Board concludes that claim 1 of the main request lacks an inventive step and that the main request does not meet the requirements of Article 56 EPC.

Auxiliary request 1

3. Admittance

3.1 Auxiliary request 1 was filed with the letter of the respondent of 12 March 2020, after the communication of the Board according to Article 15(1) RPBA 2020. In their letter, the respondent requested that auxiliary request 1 be admitted into the proceedings. It was indicated that claim 1 of that request further defined that the solids content of the binder component had a hydroxyl number originating from the at least one hydroxyl-functional binder of 110 to 160 mg KOH/g and arguments regarding inventive step were also given. No reasons were however given as to why that request was first filed after the communication of the Board.

3.2 At the oral proceedings before the Board, the respondent submitted that auxiliary request 1 had been filed as a direct reply to the communication of the Board and in particular to the weight given to E1 as

closest prior art for the first time in the case.

3.3 Section 9.6 of the communication of the Board dealt with the selection of E1 and in particular its example 2 as possible closest prior art and concluded that it appeared that E1 was no less relevant than any other of documents E2, E6 and E8 cited in appeal by the appellant. A further consideration of E1, alongside E6 and E8 as part of the inventive step assessment of the main request was provided in the communication of the Board, in particular in sections 9.8.1 and 9.9.3 as far as E1 was concerned. In that regard no more weight was given to E1 than to any of E6 and E8 in that communication such that it is not apparent what in the communication of the Board could have justified the filing of auxiliary request 1.

3.4 Moreover, E1 and its example 2 had already been put forward as the closest prior art by the appellant in the statement of grounds of appeal in a detailed analysis as to why that document could be seen as closest prior art (sections 6.4 and 6.6) and why in their opinion, claim 1 of the main request lacked an inventive step over E1 (section 6.6.1). It is also apparent that E1 was discussed as closest prior art, also starting from its example 2, at the oral proceedings before the opposition division (section 5.1 of the minutes of the oral proceedings).

3.5 It is clear from the above that auxiliary request 1, which was said to have been filed to address the objection of lack of inventive step starting from E1 as closest prior art could, and should, have been filed earlier in the appeal proceedings, that is with the reply to the statement of grounds of appeal and not only after the communication of the Board. That is not

changed by the fact that the modification made in claim 1 of the auxiliary request 1 could be easily understood. Since there is no justification for the filing of auxiliary request 1 late in the appeal proceedings and after the communication of the Board had been issued, the Board finds it appropriate to exercise its discretion under Article 13(1) RPBA 2007 by not admitting auxiliary request 1 into the proceedings.



## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



B. ter Heijden

M. C. Gordon

Decision electronically authenticated