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**Datasheet for the decision  
of 19 October 2022**

**Case Number:** T 1688/20 - 3.2.07

**Application Number:** 16155743.4

**Publication Number:** 3056283

**IPC:** B05B3/10, B05B5/04

**Language of the proceedings:** EN

**Title of invention:**

ROTARY ATOMIZING ELECTROSTATIC APPLICATOR AND SHAPING AIR RING  
FOR THE SAME

**Patent Proprietors:**

TOYOTA JIDOSHA KABUSHIKI KAISHA  
Ransburg Industrial Finishing K.K.

**Opponents:**

1. Dürr Systems AG
2. Eisenmann SE (opposition withdrawn)

**Headword:**

**Relevant legal provisions:**

EPC Art. 100(c), 123(2), 100(b), 83, 100(a), 54, 56  
Guidelines for examination November 2019, G-VI, 8 (ii) and 8.1

**Keyword:**

Grounds for opposition - insufficiency of disclosure (no) -  
added subject-matter (no) - lack of patentability (no)  
Novelty - (yes) - selection of numerical ranges  
Inventive step - (yes)

**Decisions cited:**

G 0003/89, G 0011/91, G 0001/03, G 0002/10, G 0001/16,  
T 0198/84, T 0182/89, T 0279/89, T 0019/90, T 0234/09,  
T 2623/11, T 1085/13, T 0261/15, T 1472/15, T 0437/17

**Catchword:**

Novelty of selection inventions - selection from a broad range  
- "gold standard" - see point 3.4



**Beschwerdekammern**

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**Chambres de recours**

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Case Number: T 1688/20 - 3.2.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.07**  
**of 19 October 2022**

**Appellant:** TOYOTA JIDOSHA KABUSHIKI KAISHA  
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**Appellant:** Ransburg Industrial Finishing K.K.  
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**Representative:** Zimmermann & Partner  
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**Respondent:** Dürr Systems AG  
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**Representative:** v. Bezold & Partner Patentanwälte - PartG mbB  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted on 4 June 2020  
revoking European patent No. 3056283 pursuant to  
Article 101(3) (b) EPC.

**Composition of the Board:**

**Chairman**           A. Pieracci  
**Members:**         A. Cano Palmero  
                      L. Basterreix

## **Summary of Facts and Submissions**

- I. The patent proprietors (appellants) lodged an appeal within the prescribed period and in the prescribed form against the decision of the opposition division revoking European patent No. 3 056 283.
- II. Two oppositions were originally filed. Opponent 2 withdrew its opposition with letter of 28 December 2020. Opponent 1 therefore remains as sole opponent and respondent in the present appeal.
- III. The opposition filed by opponent 1 was directed against the patent in its entirety and based on all grounds for opposition pursuant to Article 100 EPC.
- IV. The opposition division held, *inter alia*,
  - (a) that the grounds of opposition under Article 100(b) and (c) EPC (sufficiency of disclosure and added subject-matter) did not prejudice the maintenance of the patent as granted;
  - (b) that the ground of opposition under Article 100(a) EPC (novelty) prejudiced the maintenance of the patent as granted; and
  - (c) that the subject-matter of claim 1 according to auxiliary request 3E did not meet the requirements of Article 56 EPC.
- V. In preparation for oral proceedings the Board communicated its preliminary assessment of the case to the parties by means of a communication pursuant to Article 15(1) RPBA 2020. The Board indicated that the decision under appeal was likely to be set aside and the patent could be maintained as granted.

VI. The respondent replied on the substance to this communication with letter dated 26 September 2022.

VII. Oral proceedings before the Board took place on 19 October 2022. At the conclusion of the proceedings the decision was announced. Further details of the proceedings can be found in the minutes thereof.

VIII. The final requests of the parties are as follows:

for the appellants:

that the decision be set aside and the patent be maintained as granted (main request),

or, alternatively,

that the patent be maintained on the basis of the claims according to any of auxiliary requests 1, 1A, 2, 2A, 3, 3A, 3C, 3D, 3E, 4, 4A, 4C, 4D, 4E, and 5, whereby

auxiliary requests 1, 1A, 2, 2A, 3, 3A, 3C, 3D, 3E, 4 and 5 were filed during opposition proceedings;

and

auxiliary requests 4A, 4C, 4D and 4E were filed for the first time in appeal proceedings.

for the respondent:

that the appeal be dismissed.

IX. The following evidence, cited in the appealed decision, will be mentioned in the present decision:

**E5:** DE 10 2008 027 997 A1;

**E6:** DE 10 2006 057 596 A1;

**E7:** WO 2008/061584 A1;

**D2:** EP 2 058 053 A1;  
**D4:** EP 2 614 895 A1;  
**D5:** JP 2012 115736 A;  
**D6:** JPH 03101858 A;  
**D9:** JPH 08099052 A.

X. The lines of arguments of the parties are dealt with in detail in the reasons for the decision. These arguments are focused on:

- added subject-matter in claim 5 according to the patent as granted;
- sufficiency of disclosure,
- novelty of the subject-matter of claim 1 according to the patent as granted; and
- inventive step of the subject-matter of claim 1 according to the patent as granted.

XI. Claim 1 of the patent as granted, with the feature analysis used by the parties, reads:

- "A) A rotary atomizing electrostatic applicator (20) comprising:
- B) a bell cup (20, 22) whose back (20a, 22a) is arranged to be hit by atomization air (SA-IN) at an angle of 90 degrees or less; and
  - C) first air holes (30) adapted to discharge the atomization air (SA-IN) directed at the back (20a, 22a) of the bell cup (20, 22),
  - D) wherein the first air holes (30) are arranged at equal intervals on a circumference centered around a rotation axis (Ax) of the bell cup (20, 22),
  - E) the first air holes (30) are oriented in a direction opposite to a rotation direction of the bell cup (20, 22), characterized in that

F) the atomization air (SA-IN) discharged through the first air holes (30) is twisted in the direction opposite to the rotation direction of the bell cup (20, 22) at an angle of 56 degrees or more and 59 degrees or less."

XII. Claim 5 of the patent as granted reads:

"The rotary atomizing electrostatic applicator (20) according to any one of claims 1 to 4, further comprising second air holes (32) arranged on an outer circumferential side of the first air holes (30), so that pattern air (SA-OUT) discharged through the second air holes (32) passes radially outward of an outer circumferential edge of the bell cup (20, 22)."

XIII. Since the wording of the claims according to the auxiliary requests is not relevant for the present decision, there is no need to reproduce it here.

### **Reasons for the Decision**

1. *Patent as granted - Added subject-matter, Articles 100(c) and 123(2) EPC*

1.1 The following findings on added subject-matter correspond to the view of the Board which was communicated to the parties with the communication pursuant to Article 15(1) RPBA 2020 (see point 7 thereof). The parties neither reacted nor objected to the opinion expressed in that communication. After having reconsidered all relevant legal and factual aspects of the case, the Board does not see any reason to deviate from its preliminary opinion.



1.2 In point IV.1 of the reply to the statement of grounds of appeal, the respondent argued that the replacement, in granted **claim 5**, of the term "wherein", which was from original claim 8, with the term "so that" resulted in an infringement of Article 123(2) EPC, since original claim 8 left open how and why the functional feature that "pattern air SA-OUT discharged through the second air holes passes radially outward of an outer circumferential edge of the bell cup (20, 22)" is realised.

1.3 The Board is not persuaded by the arguments of the respondent and is convinced, in line with the opposition division's reasoned findings of point III. 2.1.3 of the decision under appeal, that the skilled person is not presented with any new technical information due to this change of wording.

In the Board's opinion, both formulations are equivalent, since the skilled person can only understand from the wording of both the original and the granted claim that the arrangement of the second air holes is restricted to only those arrangements that fulfil the requirement that the pattern air discharged through the second holes passes radially outward of an outer circumferential edge of the bell cup.

1.4 It follows that the finding of the opposition division, that the ground of opposition according to Article 100(c) EPC does not prejudice the maintenance of the patent as granted, holds a revision under appeal.

2. *Patent as granted - Sufficiency of disclosure,  
Articles 100(b) and 83 EPC*

2.1 The respondent argued in point IV.2 of its reply to the statement of grounds of appeal that feature F, namely that the atomization air discharged through the first air holes is twisted in the direction opposite to the rotation direction of the bell cup at an angle of 56 degrees or more and 59 degrees or less, is not disclosed so clearly and completely that a skilled person can carry it out.

2.1.1 According to the respondent, even if it is clear that the twist angle should be related to an axis of rotation and in the direction opposite to the rotation direction, this angle is not easily measurable in practice, as the holes discharging the atomization air are located on a pitch circle that is spaced from the axis of rotation. There is furthermore no information in the patent on how the measurement of this angle is to be carried out.

2.1.2 The respondent additionally argued that the patent is not sufficiently disclosed since the patent is silent as regards the accuracy or the tolerances that should be applied to the values of the claimed angle range. Indeed, under the general convention applied to error margins, an angle of e.g. 55 degrees could encompass a real value of 55.4 degrees, while the claimed value of 56 degrees would cover a real value of 55.5 degrees. This 0.1 degrees difference is so negligible that it falls within the customary tolerances so that it cannot be expected that the skilled person can carry out the invention, in particular at the boundaries of the claimed angle range.

- 2.2 The Board disagrees with the respondent's arguments for the following reasons.
- 2.2.1 As correctly indicated by the appellants, according to the case law of the Boards of Appeal an objection of lack of disclosure presupposes that there are serious doubts substantiated by verifiable facts. **The burden of proof is upon the opponent** to establish on the balance of probabilities that a person skilled in the art, using his common general knowledge, would be unable to carry out the invention (see the Case Law of the Boards of Appeal of the European Patent Office [CLB], 10th Edition, 2022, II.C.9, first two paragraphs, in particular in relation to T 19/90 and T 182/89).
- 2.2.2 The Board does not find any verifiable facts in the respondent's arguments that could substantiate serious doubts that the skilled person is unable to provide an applicator in which the atomization air discharges through air holes according to claim 1 as granted, or that the skilled person could not measure the claimed angle.
- 2.2.3 In the first place, it was not contested by the respondent that angles even of 0.1 degrees cannot be measured at all, but only that the patent did not indicate how that angle is to be measured. This alleged lack of information in the patent on how the angle can be measured does not amount to a lack of sufficiency of disclosure.
- 2.2.4 The Board further concurs with the reasoned finding of the opposition division in point III.2.2.3 of the decision under appeal that paragraphs [0035] to [0037] in combination with figures 4 and 5 of the patent provide sufficient guidance to the skilled person to

carry out the invention and put into practice the nozzle orientation required by feature F.

2.2.5 Finally, the Board is convinced that the alleged lack of information on the tolerances and accuracy of the angle values at the end points of 56 and 59 degrees does not prevent the skilled person from carrying out the invention and providing an applicator with an angle falling within the claimed range, even taking into consideration the general convention applied to error margins.

2.3 It follows that the finding of the opposition division, that the ground of opposition according to Article 100(b) EPC does not prejudice the maintenance of the patent as granted, holds a revision under appeal.

3. *Patent as granted - Novelty, Articles 100(a) and 54 EPC*

3.1 In point 2.3.3 of the decision under appeal, the opposition division found that feature F was anticipated by document E5, which discloses a twist angle ("Drallwinkel") of 50 degrees or more and 60 degrees or less, in particular 55 degrees (see paragraphs [0025] and [0072]). According to the opposition division none of the following criteria were met by the sub-range of claim 1 of the patent as granted with respect to the known broad range of E5:

(a) the selected sub-range is narrow compared to the known range;

(b) the selected sub-range is sufficiently far removed from any specific examples disclosed in the prior art and from the end-points of the known range;

(c) the selected range is not an arbitrary specimen of the prior art, *i.e.* not a mere embodiment of the prior art, but another invention (purposive selection, new technical teaching).

3.2 These criteria were initially developed in decision T 198/84 and summarised briefly in T 279/89. For criterion (c), the Board concurs with the most recent decisions of the Boards of Appeal, including T 261/15, point 2.2.2 of the reasons, according to which this criterion of purposive selection is relevant for the question of inventive step rather than for novelty. Indeed, since 2019 the Guidelines state that only the first two criteria need to be fulfilled (see CLB, *supra*, I.C.6.3.1, fifth paragraph and Guidelines for Examination, G-VI, 8 (ii) - November 2019 version). The parties appear to agree on this point (see statement of grounds of appeal, page 15, penultimate paragraph and reply to the statement of grounds of appeal, page 13, point iii.).

3.2.1 Furthermore, with regard to criteria (a) and (b), namely that a claimed sub-range must be "narrow" compared to the known range and "sufficiently far removed" from any specific examples disclosed in the prior art and from the end-points of the known range, the present Board is not convinced that the relative terms "narrow" and "sufficiently far removed" provide objective, solid and consistent criteria for establishing novelty of a selected sub-range.

The Board is of the view that these terms are generally open to such a broad interpretation that the decision whether criteria (a) and (b) are met not only depends on the factual circumstances of each case, but could also depend on the subjective perception of the

deciding body on which values are to be considered "narrow" or "sufficiently far removed". It follows that there is not always clear guidance on what can unmistakably be held as "narrow" or "sufficiently far removed" in order to fulfil the requirements of criteria (a) and (b).

3.3 In any case, the Board is additionally convinced that, at least in the present case, the remaining criteria (a) and (b) do not need to be assessed for the question of novelty, for the following reasons.

3.3.1 It is established case law of the Boards of Appeal that the European patent system must be consistent and the concept of disclosure must be the same for the purposes of Articles 54, 87 and 123(2) EPC (see G 1/03, Reasons, point 2.2.2; G 2/10, Reasons, point 4.6 and G 1/16, Reasons, point 17).

3.3.2 With regard to the allowability of an amendment to the parts of the European patent application or of a European patent in view of the requirements of Article 123(2) EPC, it is also established case law of the Boards of Appeal that the question to be considered is what a skilled person would have derived directly and unambiguously, using common general knowledge from the description, claims and drawings of the European patent application, seen objectively and relative to the date of filing (see CLB, *supra*, II.E.1.3.1, in particular G 3/89; G 11/91; and G 2/10, referring to this test as the "**gold standard**").

3.3.3 It follows from the above that, analogously as for assessing compliance with Article 123(2) EPC, in order to conclude a lack of novelty there should be in the prior art a direct and unambiguous disclosure, in the

sense of the "gold standard", of subject-matter falling within the scope of the claim (see also T 1085/13, Reasons, point 3.6.1).

- 3.3.4 The Boards have emphasized that the various tests developed for different cases of amendments are only meant to provide an indication of whether an amendment complies with Article 123(2) EPC as interpreted according to the "gold standard" and should not lead to a different result (see CLB, *supra*, II.E.1.3.1, penultimate paragraph, in particular the decisions dealing with the three-point essentiality test T 1472/15, Reasons, point 2.3 and T 0437/17, Reasons, point 3.3.4)
- 3.3.5 The present Board derives from the above that the same should hold true for deciding on novelty of the claimed subject-matter with respect to the prior art, *i.e.* that no test or list of criteria should lead to a different result than when applying the "gold standard" directly, which is the absolute requirement in terms of disclosure.
- 3.4 In light of the above, the Board concludes that in cases where, under application of the "gold standard", it can be established whether the skilled person, using common general knowledge, directly and unambiguously derives a claimed sub-range from a particular disclosed range of the prior art, no supporting test or criteria is necessary to reach a conclusion and thus none of the principles set out in decisions T 198/84 and T 279/89 needs to be applied.

3.5 Document E5

3.5.1 The appellants argued that the angle range disclosed by document E5 is 55 to 60 degrees, so that there is no direct and unambiguous disclosure of feature F of claim 1 according to the patent as granted, in particular of "an angle of 56 degrees or more and 59 degrees or less". Furthermore, the broader range of 55 to 60 degrees is only disclosed in combination with the feature of the air holes being directed to the edge of the bell cup, while features B/C of claim 1 require that the air holes are directed to the back surface of the bell cup.

3.5.2 The respondent, on the other hand, submitted that document E5 anticipated the subject-matter of claim 1 according to the patent as granted, including feature F, in a direct and unambiguous manner.

According to the respondent, the opposition division correctly found that E5 disclosed a twist angle ("Drallwinkel") of 50 degrees or more and 60 degrees or less, in particular "substantially" 55 degrees (see claim 13, paragraph i) and paragraphs [0025] and [0072]). The skilled person would understand, directly and unambiguously, that an angle value anticipated by E5 lies somewhere in the middle of the range disclosed, thereby prejudicing novelty of the angle range according to feature F.

In addition, the skilled person would inevitably understand from the formulations "60 degrees or less" and "substantially 55 degrees" values of *inter alia* 59 and 56 degrees as being the next possible and logical alternative when considering a single degree as the smallest possible difference, thereby directly and



unambiguously anticipating the end points of the claimed angle range.

Lastly, the respondent, making reference *inter alia* to decision T 234/09 and to the Guidelines G-VI, 8.1, argued that under consideration of the measurement error margins and by applying the rounding-off convention, the angle of 55 degrees or 60 degrees disclosed by E5 covers the disclosure of a value of 55.4 degrees or 59.5 degrees respectively, while the claimed values of 56 and 59 degrees also protect values of 55.5 and 59.4 degrees respectively. According to the respondent, those differences between the disclosed and claimed values of 0.1 degrees are negligible and fall within the customary tolerance values, so that E5 directly and unambiguously discloses the claimed angle values of 56 and 59 degrees, at least in view of these error margins and customary tolerances.

3.5.3 The Board is not persuaded by the respondent's arguments for the following reasons.

It cannot be agreed with the respondent that an angle value somewhere within the disclosed range can be considered as directly and unambiguously disclosed. Indeed, it is consistent case law that general information, such as a range defined by its boundaries, cannot anticipate a more specific technical feature, such as a specific value in that range, see CLB, *supra*, I.C.4.1. This also applies in the case that the alleged value is an adjacent value to be considered after one or the other boundary value. Therefore, the formulations "60 degrees or less" and "substantially 55 degrees" cannot be seen as directly and unambiguously disclosing the end points of the claimed range.

With regard to the error margins and the rounding-off convention, the Board is convinced that the skilled person would not consider different nominal values of a dimension as corresponding. Therefore the Board cannot agree with the respondent that the skilled person would derive an implied disclosure of 56 degrees from a value of 55 degrees nor an implied disclosure of 59 degrees from a value of 60 degrees.

The Board thus concludes that, under the application of the "gold standard" the skilled person cannot directly and unambiguously derive from the disclosure of E5 an "angle of 56 degrees or more and 59 degrees or less" as required by claim 1 according to the patent as granted.

3.6 Documents E6 and E7

3.6.1 The respondent further argued that documents E6 and E7 also anticipate the subject-matter of claim 1 as granted. Although these documents do not disclose the claimed range *expressis verbis*, the skilled person can derive the claimed range of 56 to 59 degrees in a direct and unambiguous manner from these disclosures.

3.6.2 The Board disagrees and is of the view that neither E6 nor E7 directly and unambiguously discloses feature F, at least for the same reasons as for document E5. Document E6 discloses the same range of twist angle as E5 (50 to 60 degrees or less, see paragraph [0014]) and no apparent embodiment within the claimed range or closer to its end-points is disclosed. Document E7 discloses an even broader range (30 to 75 degrees, see claim 19).

3.6.3 It follows that, for the same reasons as for document E5, the claimed range is not directly and unambiguously

disclosed in documents E6 and E7, so that the subject-matter of claim 1 as granted is not anticipated by these documents.

3.7 The Board thus concludes that the appellants have provided convincing arguments that demonstrate the incorrectness of the decision regarding the novelty of the subject-matter of claim 1 of the patent as granted.

3.8 Indeed, none of the available prior art documents contains a direct and unambiguous disclosure of the angle range as required by feature F. Since this finding could be established under the application of the "gold standard", the criteria for novelty of sub-ranges set out by decisions T 198/84 and T 279/89 are not to be applied (see point 3.4 above).

3.9 The above finding alone justifies the novelty of the subject-matter of claim 1 as granted. There is therefore no need to address the issue whether features B/C are anticipated by E5 or not.

3.10 Therefore, the finding of the opposition division, that the ground of opposition according to Article 100(a) EPC (novelty) prejudices the maintenance of the patent as granted, does not withstand a revision under appeal.

4. *Patent as granted - Inventive step, Articles 100(a) and 56 EPC*

4.1 The respondent argued that, if the subject-matter of claim 1 of the patent as granted was considered to be new, it is obvious in view of the available prior art.

4.1.1 Indeed, the respondent made reference to T 2623/11 *inter alia* in page 33, third paragraph, of the reply to

the statement of grounds of appeal and in page 17, first paragraph, of its letter of 26 September 2022. This decision established that in the case of selection inventions, inventive step can only exist if the selection, in this case the selection of the twist angle between 56 and 59 degrees, is associated with a particular technical effect and that there are no indications which lead the person skilled in the art to make the selection.

- 4.1.2 This is however not the case according to the respondent, who argued that neither of these criteria are met for the selected sub-range.
- 4.1.3 On the one hand, the respondent argued that the selected angle range is arbitrary, because according to the patent in suit the alleged effects of improving the coating efficiency are also achieved by twist angles outside the claimed range such as 55 degrees (as shown in figures 6 and 7 of the patent specification) or "a little below" 60 degrees (see paragraph [0048] of the patent specification), but also because the alleged effects do not only depend on the twist angle but are dependant on many other parameters, factors and interrelations which do not form part of the subject-matter of the claims. In sum, it cannot be derived from the patent that a technical effect is associated with the selected sub-range.
- 4.1.4 On the other hand, the respondent held that document E5 alone contains indications and suggestions that would lead to the claimed sub-range, so that the subject-matter of claim 1 according to the patent as granted is obvious. By explicitly disclosing an angle of 60 degrees or less, the value of 59 degrees is suggested to the skilled person. Furthermore, E5 discloses a

value of substantially 55 degrees, which indicates to the skilled person to use angles around 55 degrees which would include, for example, the values as 54 and 56 degrees. In addition, it would be incomprehensible, taking into account the rounding-off convention including tolerances, how an inventive step for the values of 56 and 59 degrees, which include the values of 55.5 and 59.4 degrees respectively, could be acknowledged compared to the known values of substantially 55 degrees and 60 degrees or less, which include the values of 55.4 and 59.5 degrees.

4.1.5 The respondent concluded that, starting from document E5, but also from any of documents E6, E7 or D2 (which had been used as closest prior art for the the subject-matter of claim 1 according to auxiliary request 3E in opposition proceedings) the skilled person would select angle values from the arbitrarily selected sub-range of feature F using their common general knowledge, thereby arriving at the subject-matter of claim 1 according to the patent as granted without exercising any inventive skill.

4.2 The Board is not persuaded by the arguments of the respondent for the following reasons.

4.2.1 Regarding the question whether feature F is to be considered an arbitrary selection or not, the Board is convinced, as put forward by the appellants in page 29 of their statement of grounds of appeal, that the claimed twist angle does indeed provide at least a relevant effect. In particular, the appellants argue in page 16 of the statement of grounds of appeal that the claimed twist angle according to feature F contributes to the technical effect of the invention of causing "the atomization air to be reflected off the back of

the bell cup and approaches the outer edge of the bell cup. The force of the atomization air is used to the maximum extent for the forced atomization of paint particles". The Board agrees with the appellants that a patent proprietor is not obliged to define all imaginable parameters in the claim, in particular as long as all the requirements of the EPC, such as those of Articles 83 and 84 EPC, are met, and that the twist angle indeed involves at least a technical effect as indicated above.

4.2.2 In the present case, the Board notes that the technical effects due to the variations of the twist angle are recognisable in view of the comparative examples corresponding to paragraphs [0046] to [0053], tables 10 to 15 and figures 6 and 7. The influence on the coating efficiency and on the paint particle diameter in view of the different values of twist angle and under the same boundary conditions of air pressure and flow rate can be clearly recognised, in particular for air pressures of 0.1 MPa and above, which involve higher flow rates. The assertion of the respondent that feature F is an arbitrary selection and that no technical effect can be associated to the selected sub-range is therefore not convincing.

4.2.3 The argument of the respondent that the technical effect mentioned in the opposed patent can also be achieved with twist angle values outside the claimed range and that therefore the claimed range is an arbitrary selection, cannot be followed. What is relevant is whether the prior art disclosing the broader range also discloses the presence of such a technical effect, which is here not the case. Even if the patent proprietor were to choose to claim a range of values for the twist angle smaller than the range in

which a technical effect might take place, the claimed range still provides a technical effect that has not been disclosed in the prior art and would thus represent a purposive selection.

4.2.4 The Board is also convinced that there is no hint in the available prior art to restrict the angle range to the claimed range. There is no indication in E5 or in any other document cited by the respondent that restricting the angle to the claimed sub-range would entail any particular technical effect or advantage, let alone with respect to the coating efficiency and particle diameter as described in the patent in suit. The fact that one or the other particular value of a known range could be selected, also taking into account the rounding-off convention and tolerances, cannot be considered as a sufficient hint, in particular in the absence of any particular motivation, that would lead the skilled person to those values or selection.

4.2.5 It follows that **the selected distinguishing sub-range** of 56 to 59 degrees is associated with technical effects which provide a purposive selection and therefore **cannot be considered to be arbitrary**. Furthermore, there is no hint, indication or pointer for the skilled person in the prior art to restrict the twist angle to the claimed selection. Under these circumstances the Board concludes that starting from any of documents E5, E6, E7 or D2 as closest prior art, the skilled person would only arrive at the subject-matter of claim 1 according to the patent as granted, *i.e.* by restricting the twist angle to the claimed range, as the result of an *ex post facto* analysis.

4.3 The above findings alone justify the presence of inventive step in claim 1 as granted. There is

therefore no need to address the issue whether features B/C and F achieve a synergistic effect or whether, starting from any of documents E5, E6 or E7, features B/C could be suggested by the teaching of any of documents D2, D4, D5, D6 or D9.

5. *Conclusions*

5.1 It follows that the arguments presented by the appellants demonstrate the incorrectness of the decision under appeal regarding lack of novelty of the subject-matter of claim 1 according to the patent as granted.

5.2 Furthermore, the respondent has not convincingly demonstrated that any of the grounds for opposition under Article 100 EPC prejudice the maintenance of the patent as granted.

5.3 Consequently, the decision under appeal is to be set aside and the patent is to be maintained as granted.



## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is maintained as granted.

The Registrar:

The Chairman:



G. Nachtigall

A. Pieracci

Decision electronically authenticated