

**Internal distribution code:**

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

**Datasheet for the decision  
of 12 November 2018**

**Case Number:** T 0868/14 - 3.2.07

**Application Number:** 05811584.1

**Publication Number:** 1877219

**IPC:** B24B7/18, A47L13/16, B24D11/00,  
B24D13/14

**Language of the proceedings:** EN

**Title of invention:**  
Method for maintaining a hard, smooth floor surface comprising  
a polymer material

**Patent Proprietor:**  
Twister Cleaning Technology AB

**Opponents:**  
Stratec - Martin Werner  
3M Innovative Properties Co.

**Headword:**

**Relevant legal provisions:**  
EPC Art. 100(b), 100(c), 100(a), 54, 56

**Keyword:**

Grounds for opposition - insufficiency of disclosure (no) -  
added subject-matter (no)  
Novelty - (yes)  
Inventive step - (yes)

**Decisions cited:**

**Catchword:**



**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 0868/14 - 3.2.07

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.07**  
**of 12 November 2018**

**Appellant:** Twister Cleaning Technology AB  
(Patent Proprietor) Klevvägen 8  
614 92 Söderköping (SE)

**Representative:** AWA Sweden AB  
Junkersgatan 1  
582 35 Linköping (SE)

**Respondent 1:** Stratec - Martin Werner  
(Opponent 1) Hauptstrasse 48  
09366 Stollberg OT Beutha (DE)

**Representative:** Hennicke, Ernst Rüdiger  
Patentanwälte,  
Buschhoff-Hennicke-Althaus  
Kaiser-Wilhelm-Ring 24  
50672 Köln (DE)

**Respondent 2:** 3M Innovative Properties Co.  
(Opponent 2) P.O. Box 33427  
St. Paul, MN 55133-3427 (US)

**Representative:** Herzog, Fiesser & Partner Patentanwälte PartG  
mbB  
Isartorplatz 1  
80331 München (DE)

**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 14 February  
2014 revoking European patent No. 1877219  
pursuant to Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman**            I. Beckedorf  
**Members:**            K. Poalas  
                          A. Pieracci

## Summary of Facts and Submissions

- I. The patent proprietor (appellant) lodged an appeal in the prescribed form and within the prescribed time limit against the decision of the opposition division revoking European patent No. 1 877 219.
- II. Two oppositions had been filed against the patent as a whole based on Articles 100(a) EPC (lack of novelty and inventive step), 100(b) EPC (insufficient disclosure) and 100(c) EPC (unallowable amendments).
- III. The opposition division found that the grounds for opposition according to Articles 100(b) and (c) EPC do not hold against the patent as granted, that the first alternative of the subject-matter of claim 1 of the patent as granted (main request) lacks novelty over D1 (WO 95/23593 A) and that the second alternative of the subject-matter of claim 1 of the patent as granted lacks inventive step over the combination of the teachings of D1 and D2 (US 2 9585 93 A). The opposition division found further all patent proprietor's auxiliary requests filed during the opposition proceedings not allowable.
- IV. In order to prepare the oral proceedings scheduled for 12 November 2018, the Board informed the parties of its preliminary assessment of the case by means of a communication pursuant to Article 15(1) RPBA dated 26 July 2018. It considered therein *inter alia* that at least the grounds for opposition according to Articles 100(b) and (c) EPC do not hold against the patent as granted.

- V. Opponent 1 (respondent 1) filed no requests or arguments concerning the substance of the present appeal. It only informed the Board with its letter dated 6 September 2018 that it would not attend the scheduled oral proceedings.
- VI. Oral proceedings before the Board took place on 12 November 2018. The Chairman noted that although having being duly summoned, respondent 1 did not attend the oral proceedings as announced. In accordance with Rule 115(2) EPC and Article 15(3) RPBA, proceedings were continued without the party.

The patent proprietor, while withdrawing all other requests previously filed during the written proceedings, requested

that the decision under appeal be set aside and  
that the patent be maintained as granted (main request),  
or, in the alternative,  
that the patent be maintained in amended form on the basis of one of the sets of claims filed as auxiliary request 1 with letter dated 12 June 2014 and as auxiliary requests 2 and 3 with letter dated 12 October 2018.

The opponent 2 (respondent 2) requested that

the appeal be dismissed.

For further details of the course of the oral procedure, reference is made to the minutes thereof.

The decision was pronounced at the end of the oral proceedings.

- VII. The independent claim 1 according to the main request, i.e. according to the patent as granted, reads as follows:

"A method for maintaining a hard, smooth floor surface, the surface comprising polymer material, such as vinyl, polyurethane, epoxy, acrylic or other plastic material, or linoleum, the method comprising treatment of the surface with a flexible pad (1) comprising an open, lofty, three dimensional non-woven web of fibers, in the presence of abrasive particles, bonded to the pad, on a contact surface between the pad (1) and the hard surface, wherein the treatment is performed in the presence of water on the contact surface, characterised that the abrasive particles comprise diamond particles, wherein the diamond particles have an average diameter of 0.1 to 30  $\mu\text{m}$ ".

- VIII. The patent proprietor argued in the appeal proceedings essentially as follows, whereby the party's arguments are dealt with in more detail in the reasons for this decision:

Neither the ground for opposition according to Article 100(b) EPC nor the one according to Article 100(c) EPC hold against the patent as granted, as correctly held by the opposition division.

Based on the disclosure of D1, the skilled person would not contemplate an embodiment where a non-woven pad is used to treat a polymer or linoleum floor surface in

the presence of water and with diamond particles having an average size of 0.1 to 30  $\mu\text{m}$ . Therefore, novelty and inventive step over the subject-matter of claim 1 are given.

The two methods known from D2 do not disclose the use of diamonds as abrasive particles having sizes of 0.1 to 30  $\mu\text{m}$ . Accordingly, even a combination of the teachings of D1 and D2 cannot render the subject-matter of claim 1 not inventive.

IX. The opponent's 2 essential arguments in the appeal proceedings can be summarised as follows, whereby the party's arguments are dealt with in more detail in the reasons for this decision:

The patent as granted does not disclose the claimed invention in a sufficiently clear and complete manner as to be carried out by a person skilled in the art (Article 100(b) EPC) and its claimed subject-matter extends beyond the content of the application as filed (Article 100(c) EPC).

The disclosure on pages 46 to 48 of D1 directed to example 16 in combination with the disclosure directed to the nature of the abrasive particles on page 26 of D1, explicitly reciting diamonds as the preferred microabrasive particles having a hardness of greater than about 9 Mohs, results to a selection from a single list of specifically disclosed elements. Such a selection does not confer novelty.

Also the combination of the information disclosed on page 5, lines 7 and 8, page 6, lines 21 to 22, page 13, line 2, page 26, lines 8 to 22 and page 29, lines 5 to 10 of D1 render the subject-matter of claim 1 not



novel.

Since D1 states that microabrasive particles having a hardness "greater than about 9 Mohs" are most preferred, see page 26, lines 10 to 11, already from the teaching of D1 alone, the skilled person is motivated to replace the aluminum oxide abrasive particles used in example 16 by diamond particles. Therefore, the subject-matter of claim 1 is not based on an inventive step over the disclosure of D1 alone.

Also the combination of the teachings of D1 and D2 renders the subject-matter of claim 1 not inventive.

## **Reasons for the Decision**

1. *Main request - sufficiency of disclosure, Article 100(b) EPC*
- 1.1 The opposition division had decided that the ground for opposition according to Article 100(b) EPC does not hold against the patent as granted, see item 2.2 of the Reasons of the impugned decision.
- 1.2 The core arguments of opponent 2 to support the ground for opposition according to Article 100(b) EPC is directed to the allegation that the claimed method for maintaining a surface does not recite any method step. The patent as granted does not sufficiently disclose, in particular, how many passes are conducted on the surface, how the pad is moved, how the average diameter of the abrasive particles is assessed, and how the

suitable particles are selected, this also with regard to the choice of shape of abrasive particles.

Furthermore, the opponent objects to the terminology "open" and "lofty" non-woven pads. However, opponent 2 does neither argue nor demonstrate in what respect the opposition division is at fault in its aforementioned finding and its reasoning.

- 1.3 Under section 4 of its communication pursuant to Article 15(1) RPBA dated 26 July 2018 the Board, having taken into consideration the corresponding submissions of the parties dated 27 October 2014, 26 June 2015 and 13 July 2016, stated the following:

*"The Board is inclined at the moment to agree with the arguments of the opposition division presented under item 2.2 of the impugned decision that the ground for opposition according to Article 100(b) EPC does not hold against the patent as granted".*

- 1.4 The above-mentioned preliminary finding of the Board has not been commented on nor has it been contested by opponent 2 during the appeal proceedings, see first indent on page 3 of the minutes of the oral proceedings.

- 1.5 Under these circumstances, the Board - having once again taken into consideration all the relevant aspects concerning said issue - sees no reason to deviate from its above-mentioned finding.

- 1.6 As a consequence, the ground for opposition according to Article 100(b) EPC does not hold against the patent as granted.

2. *Main request- amendments, Article 100(c) EPC in combination with Article 76(1) EPC*

2.1 The opposition division had decided that the ground for opposition according to Article 100(c) EPC does not hold against the patent as granted, see item 2.1 of the Reasons of the impugned decision.

2.2 The ground for opposition according to Article 100(c) EPC raised by opponent 2 is directed in particular to the allegation that the application as filed does not clearly and unambiguously disclose the combination of all the features recited in claim 1 of the patent as granted. Rather, claim 1 is based on a selection and combination of individual elements out of a number of multiple elements chosen from different contexts of the original documents. However, opponent 2 does neither argue nor demonstrate in what respect the opposition division is at fault in its aforementioned finding and its reasoning.

2.3 Under the section 5 of its above-mentioned communication pursuant to Article 15(1) RPBA dated 26 July 2018 the Board, having taken into consideration the corresponding submissions of the parties dated 27 October 2014 and 26 June 2015, stated the following:

*"The Board is inclined at the moment to agree with the arguments of the opposition division presented under item 2.1 of the impugned decision that the ground for opposition according to Article 100(c) EPC does not hold against the patent as granted".*

2.4 The above-mentioned preliminary finding of the Board has not been commented on nor has it been contested by opponent 2 during the appeal proceedings, see first

ident on page 3 of the minutes of the oral proceedings.

2.5 Under these circumstances, the Board - having once again taken into consideration all the relevant aspects concerning said issue - sees no reason to deviate from its above-mentioned finding.

2.6 As a consequence, the ground for opposition according to Article 100(c) EPC does not hold against the patent as granted.

3. *Claim 1 of the main request - Novelty, Article 54 EPC*

3.1 The Board following the corresponding arguments of the opponent 2 considers that the method of claim 1 concerning the maintenance of a hard, smooth floor surface comprising vinyl material differs from the method according to example 16 of D1 in that it discloses abrasive particles comprising diamond particles.

3.2 Opponent 2 argues in this respect further that the combination of the disclosure on pages 46 to 48 of D1, directed to example 16 with the (short) list of suitable microabrasive particles on page 26, lines 8 to 22, of D1, said list explicitly reciting diamonds as one of the preferred microabrasive particles having a hardness of greater than about 9 Mohs, results to a replacement of the aluminum oxide abrasive grains having an average diameter of 3  $\mu\text{m}$  of example 16 by diamond abrasive grains of the same size and thus to a method which is novelty destroying for the method according to claim 1.

- 3.3 The Board disagrees with the above-mentioned line of argument for the following reasons.
- 3.4 The Board notes firstly that there is no single entity in D1 disclosing the use of diamond particles of an average diameter of 0.1 to 30  $\mu\text{m}$  on any floor surface, and especially not for the treatment of floor surfaces comprising polymer material or linoleum via a flexible pad comprising an open, lofty, three dimensional non-woven web of fibers.
- 3.5 The Board notes further that D1 discloses various types of work pieces, including floors (page 2, lines 23 to 25), wooden objects (page 2, lines 28 to 30), printed circuit boards (page 3, lines 7 to 8) and metal castings (page 3, lines 9 to 10). It also provides at least four different types of abrasive structures, including non-wovens (page 6, lines 21 to 22), tufts (page 7, lines 1 to 2), brushes (page 7, lines 15 to 16) and hub brushes (page 7, lines 25 to 29). Moreover, D1 provides, on page 5, lines 16 to 19, a preferred list of abrasives for increasing gloss of an **acrylic floor surface**, which does not include diamond abrasive particles, but which does include, as it is also the case in example 16, aluminum oxide abrasive particles, silicon carbide, garnet and ceramic aluminum oxide abrasive particles.
- 3.6 The use of diamond particles is disclosed in D1 only once on page 26, lines 8 to 22. Said passage on page 26 of D1 refers to a fairly long list with 17 different abrasive particles, without discussing what particle is to be used with what abrasive structure, on what workpiece material or under what conditions.

- 3.7 The argument of opponent 2, according to which the indication in the above-mentioned section that the abrasive particles "most preferably" have a hardness greater than about 9 Mohs would lead the skilled person to diamonds, cannot be accepted since, as stated by the patent proprietor and not being contested by opponent 2, other particles mentioned in this list also have a hardness of greater than about 9 Mohs, for example, silicon carbide (9-9.5 Mohs), aluminum oxide (9-9.5 Mohs), cubic boron nitrate (9.5-10 Mohs).
- 3.8 Example 16 refers to a specific test carried out in order to verify the invention disclosed in D1. In said example a specific type of abrasive structure (open, lofty, three dimensional non-woven web of fibers), a specific type of workpiece (floor), a specific workpiece material (dulled acrylate), a specific type of abrasive particles (aluminum oxide dispersed in polyester), a specific size of the abrasive particles (3  $\mu\text{m}$ ) and a specific type of circumstance (application of spray) have been chosen. This means, that example 16 is the result a specific combination of different lists of parameters disclosed in D1.
- 3.9 The Board notes in this respect that in the examples 15 to 20 concerning the use of non-woven webs comprising microabrasive filed fibers several of the above-mentioned parameters had been modified, whereby the specific type of abrasive particles used, namely aluminum oxide dispersed in polyester, remained in all these examples unchanged. This means that D1 does not recognise any need for a change of the abrasive particles in said examples.
- 3.10 There is neither an explicit nor an implicit disclosure in D1 for an example using a different type of abrasive

particles, namely diamonds, retaining thereby all the other parameters of example 16 unchanged.

- 3.11 Given that on page 5, lines 16 to 19, of D1 a list of abrasives for increasing gloss of an **acrylic floor** surface exists and that example 16 refers to the treatment of acrylate floors, the skilled person would contemplate, in case it would search for a different type of abrasive particles, to choose an abrasive particle out of said list. Said list, on the other hand, does not mention diamond abrasive particles.
- 3.12 Due to the fact that lines 8 to 22 on page 26 of D1 refer to 17 abrasive particles in general, without discussing what particle is to be used, with what abrasive structure, on what workpiece material or under what conditions, there is no indication in said passage of D1 that diamonds, which are mentioned in said passage, are suitable to be used in the specific parameter combination of abrasive structure (open, lofty, three dimensional non-woven web of fibers), type of workpiece (floor), workpiece material (dulled acrylate), size of the abrasive particles (3  $\mu\text{m}$ ) and type of circumstance (application of spray) as it is the case in example 16.
- 3.13 Accordingly, the combination of example 16 with the disclosure of lines 8 to 22 on page 26 of D1 does not put into question the novelty of the subject-matter of claim 1.
- 3.14 Furthermore, concerning the description passages of D1 mentioned in the impugned decision and referred to by opponent 2 the Board comments as follows:

- 3.15 Page 13, line 2, and page 6, lines 21 to 22, are parts of the description of D1 where open, lofty non-woven webs of fibers are described as such. Page 5, lines 7 and 8, is a part of the description that describes the flagging effect, which is specific to the brush embodiments, as it refers to the fiber tips striking the surface of the workpiece. Page 29, lines 5 to 10, is a separate part of the description, which in general terms describe the circumstances under which any of the different types of abrasives disclosed in D1 may be used. Hence, lines 5 to 10 of page 29 refer not only to non-woven, but also to tufts, brushes and hub brushes. Lines 5 to 22 on page 26 of D1 refer to abrasive particles in general, without discussing what particle is to be used with what abrasive structure, on what workpiece material or under what conditions.
- 3.16 In conclusion, the combination the above-mentioned passages of the description of D1 cannot be used as basis for a novelty attack, as there is no disclosure or hint in said passage for a selection in the form of the specific features combination of claim 1.
- 3.17 Opponent 2 did not provide any indication of what features are considered to be disclosed in combination in D1, nor any reasoning showing that the skilled person would seriously contemplate any embodiment wherein the features of claim 1 are disclosed in combination. In particular, opponent 2 picks out, without any indication in D1, a specific type of abrasive structure (open, lofty, three dimensional non-woven web of fibers), a specific type of workpiece (floor), a specific workpiece material (polymer), a specific type of abrasive particles (diamond), a specific size of the abrasive particles (0.1 to 30  $\mu\text{m}$ ) and a specific type of circumstance (presence of water)



from various portions of the disclosure of D1 in order to arrive at the subject-matter of claim 1. Hence, said novelty attack is based on an unallowable combination of different portions of D1.

3.18 When holding claim 1 not novel over D1 in the impugned decision, the opposition division ignored both the fact that there is a preferred list of abrasives for treating acrylic floors on page 5, lines 16 to 19, of D1 without any reference to diamonds and the teaching of the examples 15 to 20 of D1 referred to non-woven webs without any reference to abrasive particles other than aluminum oxide dispersed in polyester. The only way of arriving at the subject-matter of claim 1 would be the combination of elements from various parts of the disclosure of D1 without due regard to their respective context.

3.19 The Board concludes that, based on the disclosure of D1, the skilled person would not contemplate an embodiment where a non-woven pad is used to treat a polymer or linoleum floor surface in the presence of water and with diamond particles having an average size of 0.1 to 30  $\mu\text{m}$ .

3.20 Therefore, the subject-matter of claim 1 is novel over the disclosure of D1.

4. *Claim 1 of the main request - inventive step,  
Article 56 EPC*

*Teaching of D1 alone*

4.1 As stated under point 3.1 above, the Board following the corresponding arguments of opponent 2 considers that the method of claim 1 concerning the maintenance

of a hard, smooth floor surface comprising vinyl material differs from the method according to example 16 of D1 in that it discloses abrasive particles comprising diamond particles.

- 4.2 When starting from the above-mentioned disclosure of D1, the objective technical problem of the present invention can be seen in the provision of alternative abrasive particles to be used in the method according to example 16 of D1, as argued by opponent 2.
- 4.3 The question at stake is therefore whether the skilled person, starting from example 16 of D1 and seeking to find an alternative for the abrasive articles used therein, **would** select diamond particles.
- 4.4 Example 16 refers to a specific test carried out in order to verify the invention disclosed in D1. In said example a specific type of abrasive structure (open, lofty, three dimensional non-woven web of fibers), a specific type of workpiece (**floor**), a specific workpiece material (**dulled acrylate**), a specific type of abrasive particles (aluminum oxide dispersed in polyester), a specific size of the abrasive particles (3  $\mu\text{m}$ ) and a specific type of circumstance (application of spray) have been chosen. This means, that example 16 is the result of a specific combination of different lists of parameters disclosed in D1.
- 4.5 The Board notes in this respect that the passage extending between lines 14 and 19 of page 5 of D1 provides a preferred list of abrasives suitable for the treatment of an **acrylic floor surface**, increasing thereby its gloss. Said passage of D1 proposes explicitly the use of aluminum oxide, silicon carbide, garnet and ceramic aluminum oxide. No reference to the

use of diamond abrasive particles exists in said passage.

- 4.6 The Board is therefore persuaded, that the skilled person, looking for alternative abrasive particles for the treatment of the **dulled acrylate floor** treated in the test according to example 16 of D1, **would** take into consideration the passage extending between lines 14 and 19 of page 5 of D1 directed to abrasive particles suitable for the treatment of an **acrylic floor surface**. Given that diamonds as abrasive particles for the treatment of an acrylic floor surface are not mentioned therein, the skilled person **would not be prompted** through said passage to replace the aluminum oxide of example 16 with diamonds.
- 4.7 The use of diamond particles is disclosed in D1 only once on page 26, lines 8 to 22. Said passage on page 26 of D1 refers to a fairly long list of 17 different abrasive particles, without discussing what particle is to be used, with what abrasive structure, on what workpiece material or under what conditions.
- 4.8 The argument of opponent 2 that the indication in the above-mentioned section of page 26 that the abrasive particles "most preferably" have a hardness greater than about 9 Mohs would lead the skilled person to diamonds cannot be accepted since, as stated by the patent proprietor and not being contested by opponent 2, other particles mentioned in this list also have a hardness of greater than about 9 Mohs, for example, silicon carbide (9-9.5 Mohs), aluminum oxide (9-9.5 Mohs), cubic boron nitrate (9.5-10 Mohs).
- 4.9 Due to the fact that lines 8 to 22 on page 26 of D1 refer to 17 abrasive particles in general, without

discussing what particle is to be used with what abrasive structure, on what workpiece material or under what conditions, there is no indication in said passage of D1 that diamonds, which are mentioned in said passage, are suitable to be used in the specific parameter combination of abrasive structure (open, lofty, three dimensional non-woven web of fibers), type of workpiece (floor), workpiece material (dulled acrylate), size of the abrasive particles (3  $\mu\text{m}$ ) and type of circumstance (application of spray) as it is the case in example 16.

4.10 Accordingly, in the absence of any direct hint in D1 for a replacement of the aluminum oxide abrasive particles used in example 16 of D1 for the treatment of a dulled acrylate floor with diamond abrasive particles, the Board considers that the skilled person having no incentive therefore would not replace the aluminum oxide abrasive particles used in example 16 of D1 with diamond abrasive particles and would thus not arrive at the subject-matter of claim 1.

4.11 The subject-matter of claim 1 involves therefore an inventive step over the disclosure of D1 alone.

*Combination of the teachings of D1 and D2*

4.12 As stated under point 3.1 above, the Board, following the corresponding arguments of opponent 2, considers that the method of claim 1 concerning the maintenance of a hard, smooth floor surface comprising vinyl material differs from the method according to example 16 of D1 in that it discloses abrasive particles comprising diamond particles.

- 4.13 It is undisputed that the two methods known from D2 do not disclose the use of diamonds as abrasive particles, nor the size of the particles of 0.1 to 30  $\mu\text{m}$ , see reply to the statement with the grounds of appeal, two last lines of the first complete paragraph on page 17.
- 4.14 This means that even if, for the sake of argument, the skilled person, seeking to provide alternative abrasive particles for the aluminum oxide particles used in example 16 of D1, would take into consideration the teaching of D2, it would not arrive at the subject-matter of claim 1, since D2, as stated under point 4.13 above, does not disclose the use of diamonds as abrasive particles at all.
- 4.15 Therefore, the subject-matter of claim 1 involves also an inventive step over the combination of the teachings of D1 and D2.
- 4.16 In view of the affirmative assessment of inventive step of the claimed subject-matter in favour of the appellant-patent proprietor, there is no need to further discuss and reason in detail the Board's discretionary decision under Article 12(4) RPBA not to admit into the proceedings of document E8 ("Test report - Achieving gloss on vinyl floor - Tests conducted 5-24 May 2014 by Birger Elofsson") for lack of substantiation and justification as why the patent proprietor had not filed this document already during the proceedings before the opposition division.

## 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

I. Beckedorf

Decision electronically authenticated