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**Datasheet for the decision  
of 2 June 2022**

**Case Number:** T 2944/19 - 3.2.01

**Application Number:** 13821804.5

**Publication Number:** 2882308

**IPC:** A24F47/00

**Language of the proceedings:** EN

**Title of invention:**

HEATING ASSEMBLY FOR AN AEROSOL GENERATING SYSTEM

**Patent Proprietor:**

Philip Morris Products S.A.

**Opponent:**

Withers & Rogers LLP/Jones Nicholas/Wright Howard/  
Wallin Nicholas

**Headword:**

**Relevant legal provisions:**

RPBA Art. 12(2), 12(4)

EPC Art. 100(a), 54, 56

**Keyword:**

Reply to the statement of grounds of appeal - party's complete case - objections not substantiated not taken into account

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 2944/19 - 3.2.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.2.01**  
**of 2 June 2022**

**Appellant:** Philip Morris Products S.A.  
(Patent Proprietor) Quai Jeanrenaud 3  
2000 Neuchâtel (CH)

**Representative:** HGF  
HGF Limited  
1 City Walk  
Leeds LS11 9DX (GB)

**Respondent:** Withers & Rogers LLP/Jones Nicholas/Wright  
(Opponent) Howard/  
Wallin Nicholas  
4 More London Riverside  
London SE1 2AU (GB)

**Representative:** Edson, Russell Gregory  
Withers & Rogers LLP  
2 London Bridge  
London SE1 9RA (GB)

**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
4 September 2019 concerning maintenance of the  
European Patent No. 2882308 in amended form.**

**Composition of the Board:**

**Chairman** G. Pricolo  
**Members:** J. J. de Acha González  
A. Jimenez

## Summary of Facts and Submissions

I. The appeal of the patent proprietor is directed against the interlocutory decision of the Opposition Division maintaining the European patent No. 2882308 in amended form according to the auxiliary request 2.

II. The Opposition Division found *inter alia* that:

- the granted patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC);
- the subject-matter of granted claims 1 and 15 was new over **E1** (WO2011/076407A), **E2** (WO96/32854A) and **E3** (WO2011/050964A); but
- did not involve an inventive step in view of the combination of E2 with common general knowledge of the skilled person.

III. The appellant (patent proprietor) requested in the statement of grounds of appeal to set aside the decision and to maintain the patent as granted as the main request, or, in the alternative, to maintain the patent according to any of the auxiliary requests 1 to 7 submitted therewith.

The respondent (opponent) requested in the reply to the statement of grounds of appeal of the patent proprietor to dismiss the appeal.

Both parties requested oral proceedings on a conditional basis.

IV. With communication of 7 March 2022 pursuant to Article 15(1) RPBA 2020 (Rules of Procedure of the Boards of

Appeal OJ EPO 2019, A63) the Board expressed its preliminary assessment of the case which was positive for the appellant's main request.

- V. With letter of 20 April 2022 the respondent informed about its decision not to be represented at the oral proceedings scheduled for 25 May 2022 before the Board and that it relied only on its written case.
- VI. The oral proceedings were cancelled.
- VII. Claim 1 as granted reads as follows:

*"A heating assembly for heating an aerosol-forming substrate, comprising:  
a heater (14) comprising an electrically resistive heating element (82) and a heater substrate (80); and  
a heater mount (26) coupled to the heater (14);  
**characterised in that** the heating element comprises a first portion (84) and a second portion (86) configured such that, when an electrical current is passed through the heating element the first portion is heated to a higher temperature than the second portion, wherein the first portion (84) of the heating element is positioned on a heating area (91) of the heater substrate and the second portion of the heating element is positioned on a holding area (93) of the heater substrate; and  
wherein the heater mount (26) is fixed to the holding area (93) of the heater substrate."*

Claim 15 as granted reads as follows:

*"A method of manufacturing a heating assembly comprising:  
providing a heater substrate (80);*

*depositing one or more electrically resistive heating elements (82) on the substrate, **characterised in that** each heating element comprising a first portion (84) and a second portion (86) configured such that, when an electrical current is passed through the heating element the first portion is heated to a higher temperature than the second portion as a result of the electrical current, wherein the first portion of the heating element is deposited on a heating area (91) of the heater substrate and the second portion of the heating element is deposited on a holding area (93) of the heater substrate; and moulding a heater mount (26) to the holding area (93) of the heater substrate."*

## **Reasons for the Decision**

1. *Sufficiency of disclosure*
  - 1.1 The objection of the respondent for the granted patent under Article 100(b) EPC is not taken into account pursuant to Article 12(4) RPBA 2007 (Rules of Procedure of the Boards of Appeal OJ EPO 2007, 536) which applies to the current appeal under Article 25(2) RPBA 2020.
  - 1.2 The Opposition Division decided on this ground for opposition and duly considered all submissions made by the opponent during the opposition proceedings in this regard (see point 13 of the contested decision).
  - 1.3 The respondent merely referred to those submissions in the reply to the statement of grounds of appeal of the patent proprietor (see point 1.1 of the reply).

1.4 Under Article 12(4) RPBA 2007 everything presented by the parties under Article 12(1) RPBA 2007 shall be taken into account by the Board if and to the extent it relates to the case under appeal and meets the requirements in Article 12(2) RPBA 2007. Further, Article 12(2) RPBA 2007 stipulates that the reply shall set out clearly and concisely the reasons why it is requested that the decision under appeal be amended or upheld, and should specify expressly all the facts, arguments and evidence relied on.

1.5 In the present case the respondent fails to put forward the reasons why the Opposition Division was not correct in its reasoned assessment on the sufficiency of disclosure raised during the opposition proceedings. Accordingly, this objection of the respondent does not meet the requirements of Article 12(2) RPBA 2007 and is therefore not taken into account since the Board has no reasons in view of those to overturn the Opposition Division's decision in that respect.

## 2. *Novelty - Article 54 EPC*

2.1 The subject-matter of granted claims 1 and 15 is new in view of E2, E3 and E1.

2.2 It was disputed that the ceramic coating of the monolithic structure of the heater assembly as disclosed under the alternatives on pages 65 to 68 together with figures 14 and 15 of E2 represented a substrate in the sense of claim 1. The Opposition Division, in line with the opponent's submissions, considered that the ceramic coating constituted a heater substrate according to claim 1 because such coating provided increased and stronger mechanical integrity of the heater assembly. The skilled person

concluded from the disclosure of the patent in suit that a substrate may be broadly defined as something which gave structural support to something else.

The Board disagrees and judges that the insulating coating of E2 cannot be seen as the heater substrate claimed. The skilled reader of the patent in suit understands the substrate as being a part forming the base structural element of the heater on which the electrically heating element - here a resistor (electrically resistive heating element heated by electrical current passing therethrough) - is located and not the other way round (the coating in E2 provides further skeletal structure and strength to that already included in the monolithic structure of the heater assembly). According to granted claim 1 the resistive heating element is positioned on the heater substrate and the description of the contested patent further discloses that the heating element (heating elements on the substrate) may further be coated to provide further properties to the heater (see para. [0023] and [0071]). Accordingly, a coating is applied to a part or piece which is a substrate in order to provide it with further properties or strengthen other properties such as mechanical integrity. The coating as such is not a substrate, i.e. a part or piece representing a base or support to receive on it an electrically resistive heating element.

The Board thus shares the view of the appellant and accordingly E2 does not disclose a heater substrate on which the first and second portions of the electrically resistive heating element are positioned.

- 2.3 The assessment of the Opposition Division is correct as regards the disclosure of E3. E3 fails to disclose the second portion of the heating element having a lower

temperature than the first portion when electrical current passes therethrough.

The respondent argued that the the skilled person would consider the necessary connection pads of the electrically conductive track or tracks 403 disclosed in E3 to have a form which enlarged the width of the tracks in order to connect them to the connections 405. These wider portions of the heating tracks would be the cooler 'second portion' of the heating element. Moreover, the skilled person would also logically interpret the rectangle between the tracks 403 and the connections 405 depicted in figure 4 of E3 as a support (i.e. a mount) for the heater and substrate. Further, the mentioned connection pads had to be inevitably found inside said rectangle.

However, E3 only refers to heating resistors of the electric conductive tracks without making any reference to different heating temperatures for the heating element when electrical current passes therethrough. Further, E3 is silent on the function and purpose of the solid part in figure 4 referred to by the respondent as the mount for securing the substrate to the cylindrical plug. Additionally, the structure and configuration within that part is not directly and unambiguously derivable from E3, let alone the heating behaviour of that part. Consequently, the assumptions of the respondent regarding the structure and function of the rectangle are purely speculative and not directly and unambiguously derivable from E3.

E3 also specifies that the heater can be mounted using a special frame, such as a metallic clamp, or the heater may be an integral part of a monolithic ceramic base sitting within the electrically heated smoking system (see page 13, para. 4). However, specifics of

the frame and base for mounting the heater are left open so that it cannot be deduced that the part referred to by the respondent in the schematic figure 4 is a mount of the heater as claimed.

Accordingly, E3 does not disclose the first and second portions of the electrically resistive heating element with different heating temperatures when electrical current is applied, and the heater mount claimed.

- 2.4 The issue raised by the patent proprietor in appeal about the admissibility of the objection on novelty in view of E3 during the opposition proceedings can be left aside since the objection fails on the merits as explained above.
- 2.5 As regards novelty of the subject-matter of granted claim 1 over E1, the respondent merely referred to the submissions made during the opposition proceedings which are duly considered by the Opposition Division in the decision.
- The Board sees no reason to deviate from the view of the Opposition Division (see point 15.1 of the impugned decision). Indeed according to claim 1 the first and second portions are heated when electrical current passes therethrough. This is not the case in E1 (see figures 10 to 16) where 109 and 105 are non resistive parts of the heater and act as conductors with negligible resistance and therefore no electrical heating.

### 3. *Inventive step - Article 56 EPC*

- 3.1 The subject-matter of granted claims 1 and 15 are not rendered obvious by the prior art at hand.

3.2 The following inventive step objections for the subject-matter of granted claim 1 were substantiated by the respondent in the reply to the statement of grounds of appeal:

- E2 + common general knowledge; and
- E3 + common general knowledge.

3.3 The inventive step objection of the Opposition Division and of the respondent starting from E2 as the closest prior art cannot persuade because it assumed that E2 disclosed the heater substrate of claim 1 which is incorrect (see point 2.2 above).

3.4 When starting from E3 the respondent submitted two lines of attack. One in which the only difference of claim 1 from the disclosure of E3 (see figure 4) was the feature of the heater mount and another one in which it further differed therefrom on account of the feature of the first and second portions of the electrically resistive heating element.

The first line is unsuccessful because E3 does not disclose the first and second portions of the electrically resistive heating element with different heating temperatures when electrical current is applied either (see under point 2.3 above).

Under the second line of argumentation, the opponent alleged that the technical effect of the the first and second portions of the heating element could be seen as to reduce the heating effect of a holding area compared to a heating area of the heater. The objective technical problem could then be formulated as how to reduce the heat distribution through a mount which held an electrically resistive heating element.

The skilled person would be aware that excessive heat in the mount would be transferred to the user and accordingly would be motivated to consider ways of generating a lower level of heat within the mount. It would therefore be obvious to the skilled person to provide tracks and a heater arrangement that are necessarily cooler in the mount. The means to achieve this would be obvious to the skilled person based on common general knowledge which would include providing tracks of reduced resistance in the area of the mount.

As the Board pointed out in its preliminary assessment of the case in its communication pursuant to Article 15(1) RPBA 2020, the reasoning of the respondent under the second line of attack is based on hindsight because in order to generate lower heat for the mount the skilled person does not find any hint in its common general knowledge bearing in mind the flexibility of arrangement of the tracks and connections on the heater substrate disclosed in E3 to provide further the resistors with different heating characteristics for the mount. Connectors in the form of wires without resistance, i.e. without heat generation, which are not resistors for producing heat, would be selected instead. A motivation to provide a lower heat generating resistor where the mount is placed instead of just a conductor without heat generation is missing.

3.5 Since the subject-matter of claim 1 is broader than that of the method of claim 15 that produces an assembly falling under the subject-matter of claim 1, the subject-matter of claim 15 is also new and involves an inventive step in view of E2, E3 and common general knowledge of the skilled person.

4. It follows from the above that that the appeal of the patent proprietor is allowable and that no grounds for opposition prejudices the maintenance of the granted patent.

## 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:



A. Vottner

G. Pricolo

Decision electronically authenticated