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Datasheet for the decision of 30 October 2025

Case Number: T 0505/24 - 3.2.01

Application Number: 16155092.6

Publication Number: 3066942

IPC: A24F40/57

Language of the proceedings: EN

Title of invention:
HEATED AEROSOL-GENERATING DEVICE AND METHOD FOR GENERATING AEROSOL WITH CONSISTENT PROPERTIES

Patent Proprietor:
Philip Morris Products S.A.

Opponent:
Nicoventures Trading Limited

Headword:

Relevant legal provisions:
EPC Art. 54, 56
RPBA 2020 Art. 12(6)

Keyword:
Novelty - main request (no)
Inventive step - auxiliary request 1 (no)
Late-filed auxiliary request 2 - should have been submitted in first-instance proceedings (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0505/24 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 30 October 2025

Appellant: (Patent Proprietor)	Philip Morris Products S.A. Quai Jeanrenaud 3 2000 Neuchâtel (CH)
Representative:	Abitz & Partner Postfach 86 01 09 81628 München (DE)
Respondent: (Opponent)	Nicoventures Trading Limited Globe House 1 Water Street London WC2R 3LA (GB)
Representative:	Dehns 10 Old Bailey London EC4M 7NG (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 9 February 2024 concerning maintenance of the European Patent No. 3066942 in amended form.**

Composition of the Board:

Chairman	G. Pricolo
Members:	J. J. de Acha González
	S. Fernández de Córdoba

Summary of Facts and Submissions

I. The appeal of the patent proprietor lies against the interlocutory decision of the Opposition Division, which found that the contested patent, as amended in accordance with the auxiliary request 2 filed during the oral proceedings, complied with the requirements of the EPC.

The opponent initially also filed an appeal against the decision of the Opposition Division which they subsequently withdrew during the oral proceedings before the Board.

II. The following documents are relevant for the present decision:

D8: US 2003/0150451 A1; and

D14: US 5388574 A.

III. The Opposition Division found among others that the subject-matter of claim 1 of the main request was not new in view of D8 and that the subject-matter of claim 1 of auxiliary request 1 did not involve an inventive step in view of D8 together with common general knowledge of the skilled person.

IV. Oral proceedings before the Board were held on 30 October 2025 as a videoconference.

The appellant (patent proprietor) requested that the decision of the Opposition Division be set aside and that the patent be maintained in amended form on the basis of the main request, or, in the alternative, on the basis of one of the auxiliary requests 1 or 2, all

requests filed with their statement of grounds of appeal.

The respondent (opponent) requested that the appeal of the patent proprietor be dismissed.

V. Claim 1 of the main request (numbering according to the contested decision):

F1.1 *A method of controlling aerosol production in an aerosol-generating device, the device comprising:*
F1.2 *a heater*
F1.2.1 *comprising at least one heating element (14)*
F1.2.2 *configured to heat a solid aerosol-forming substrate (12); and*
F1.3 *a power source (16)*
F1.3.1 *for providing power to the heating element, comprising the steps of:*
F1.4 *controlling the power provided to the heating element to heat the solid aerosolforming substrate*
F1.5 *such that in a first phase*, power is provided to the at *least one heating element*
F1.5.1 *such that the temperature of the heating element increases from an initial temperature to a first temperature,*
F1.6 *in a second phase power is provided*
F1.6.1 *such that the temperature of the heating element decreases to a second temperature lower than the first temperature and*
F1.7 *in a third phase power is provided*
F1.7.1 *such that the temperature of the heating element increases to a third temperature greater than the second temperature, wherein:*
F1.8 *the first phase, second phase and third phase each have a predetermined duration,*
or

F1.9 *the first phase is ended when the heating element reaches the first temperature.*

Claim 1 of the auxiliary request 1 differs from claim 1 of the main request in that it further includes the following additional technical feature:

FAR1 "*wherein power is continually supplied during the first, second and third phase*"

Claim 1 of the auxiliary request 2 differs from claim 1 of the auxiliary request 1 in that feature F1.2.2 reads as follows (the additional feature underlined by the Board):

FAR2 "*configured to heat a solid aerosol-forming substrate (12) by means of conduction; and..*"

Reasons for the Decision

1. *Main request*

The main request corresponds to the main request underlying the decision under appeal.

1.1 *Novelty*

1.1.1 The subject-matter of claim 1 is not new over the method disclosed in D8 (Article 54 EPC).

1.1.2 The Opposition Division found that the subject-matter of claim 1 was not new over D8.

The patent proprietor repeated the arguments considered by the Opposition Division in the decision. They contested that D8 disclosed the supply of power to the heater during the first, second and third phases, as specified by features F1.5 to F1.7.
Paragraphs [0023] and [0025], in particular, did not specify the operation of the heater as set out in features F1.5 to F1.7, nor was there a link between the disclosures in these paragraphs and that in paragraph [0029]. Consequently, the temperatures in paragraphs [0023] and [0025] corresponded to the temperature of the air flowing through the tobacco material rather than the temperature of the heater. Therefore, the heater was not controlled or powered to reach these temperatures.
Furthermore, D8 did not specify whether the heater was powered in the second phase. The method by which the temperature was lowered from 122° to 100° remained unspecified.
Under the disclosure of D8, it was also possible to obtain an air temperature to be applied to the substrate that followed the high-low-high temperature programme in D8, by heating the heating element to a constant temperature and adjusting the air temperature using the fan control only.
Finally, D8 was not enabling as the temperatures given in paragraphs [0023] and [0025], whether in °F or °C, were not high enough to generate an aerosol. Document D14, cited in D8, could not be used to confirm the generation of aerosol at such low temperatures, since the production of aerosol under 50°C was not achieved by heating, but by mechanical means, i.e. nebulisation.

1.1.3 As the opponent argued, the device in D8 functions as a 'hairdryer for tobacco' (i.e. air is blown by a fan,

heated by a heater, and then passed through the aerosol forming substrate; see paragraphs [0024] and [0030] of D8).
Further, it can operate according to a vaporization program, as specified in paragraphs [0023] and [0025], which provides the tobacco substrate with heated air in a high-low-high temperature regime. The heater produces the heat that heats the air and is controlled by the control means, which adjust the temperature and time of the heater (see paragraph [0013]). According to paragraph [0024], the control means deliver a set of instructions to the heater and fan. The latter can produce an airflow of between 0 and 10 l/min (see paragraphs [0013], [0029] and claim 6).
The device of D8 controls thus the temperature and time of the heater, as well as the flow of air produced by the fan, in order to achieve a convection air stream directed over the tobacco substrate, according to the phases specified in paragraphs [0023] and [0025] (see also paragraph [0030]).

The question now is whether the control of the heater in order to achieve such an air stream in D8 falls under the subject-matter of features F1.5 to F1.7 of claim 1.

In order to provide air at temperatures of 122°F, 100°F and 134°F to the tobacco substrate, the heater will need to be heated at least to those temperatures, depending on the airflow of the fan (the fan itself does not produce any heat). To achieve this high-low-high combination of air temperature for the substrate, as the opponent argues, the temperature of the heating means will also follow that pattern, even though the heater temperature may differ from that of the air stream applied to the substrate.

Furthermore, it is implicit that power is supplied to the heater in each of the phases described in paragraphs [0023] and [0025], in order to heat the air that is blown through it by the fan.
Regarding the reduction in temperature of the tobacco substrate from 122°F (50°C) to 100°F (38°C) and its subsequent maintenance for one minute, it is possible that the heater is completely shut down in order to cool the heater and the substrate using the air stream. However, at some point, power will necessarily be supplied to the heater to prevent the temperature of the tobacco substrate from dropping below 100°F.

Consequently, the heater in D8 is controlled according to features F1.5 to F1.7 of claim 1.

1.1.4 As regards the enabling disclosure objection to D8, the following is noted:
The temperature units in paragraph [0025] are °F, not °C. In paragraph [0023], no unit is specified, but it is likely to be °F, bearing in mind that the heater of the embodiment provides a heat preferably between 0°C (32°F) and 100°C (212°F) (or 300°C (572°F); see paragraphs [0012] and [0013], as well as claim 22).
The Opposition Division considered that there was an error in the values of paragraph [0025], which were actually in °C and not °F. This was based on conventional knowledge regarding the onset temperatures of aerosol production from tobacco. However, the Opposition Division did not provide any evidence of this.
Document D14, cited in D8 (see paragraph [0005]), produces an aerosol at temperatures below approximately 50°C (122°F; see claim 5). It should be noted that the appellant's argument that vaporisation in D14 occurs below 50°C by mechanical means confirms that D8 is

enabling, since the method in D8 uses a heater, as well as mechanical means (a fan to blow air) in combination, for vaporisation. The subject matter of claim 1 does not preclude the use of additional means for vaporisation, in addition to the heat provided by the heater.
The patent proprietor merely asserted that the temperatures were not adequate for aerosol generation, without providing proof. The opponent contested this assertion.
According to established case law of the Boards of Appeal, the burden of proof lies with the party alleging the fact.
Consequently, the Board considers that there are no reasons to suggest that the disclosure of D8 is not enabling.

1.1.5 It follows that the decision is correct in that the subject-matter of claim 1 is not new over D8.

2. *Auxiliary request 1*

Claim 1 of auxiliary request 1 is identical to claim 1 of auxiliary request 1 underlying the decision under appeal.

2.1 *Article 56 EPC*

2.1.1 The subject-matter of claim 1 does not involve an inventive step in view of D8 and common general knowledge of the skilled person (Article 56 EPC).

2.1.2 Starting from D8, both parties agreed that the subject-matter of claim 1 differs from the method in D8 on account of feature FAR1, namely in that power is

continually supplied during the first, second and third phases.

2.1.3 The patent proprietor argued that D8 provided no disclosure whatsoever of the manner in which the heater means 36 and fan were controlled, offering neither teaching nor suggestion that would prompt the skilled person to modify its apparatus to incorporate feature FAR1. The Opposition Division's characterisation of this continual supply as 'straightforward' did not satisfy the legal test for obviousness, since an invention's simplicity did not negate its inventive character. Moreover, the Opposition Division's reliance on paragraph [0023] of D8 to infer a need for precise temperature control lacked any factual basis and constituted impermissible ex post facto reasoning; D8 addressed only the temperature of the substance, not the heater means 36, and the two were necessarily distinct. No secondary evidence had been adduced to show that the skilled person could or would arrive at the claimed feature or be motivated to adapt D8 accordingly. In light of D8's convection-based operation, in which heated air was directed by the fan means toward the substrate rather than the substrate being heated directly by the heater means, the most obvious measures for reducing substrate temperature would be to switch off the heater or the fan, approaches directly contrary to the requirement of continual power supply to the heater during the second phase. The Opposition Division's finding of lack of inventive step was therefore unsustainable.

2.1.4 Nevertheless, the Opposition Division's conclusions are correct (see points 7.8 and 7.9 of the contested decision). Even if the temperatures referred to are those of the heated air stream applied to the

substrate, as explained above, the temperature is regulated by the heater. Consequently, a continually powered heater would solve the problem identified by the Opposition Division by providing precise temperature control during the various phases. Recognition of precise temperature control derives from the precise temperatures demanded for the tobacco over periods of several minutes to obtain an optimal vaporization programme, as described in paragraphs [0023] to [0025] of D8. Switching off the power supply to the heater for extended periods would result in an under-damped controlled system, reducing the temperature of the tobacco below 100°F in the second phase. As the opponent put forward, continually supplying power during all phases disclosed in D8 is a matter of routine choice for the skilled person and provides more precise temperature control during the phases. It is also noted that D8 requires no adaptation to complete its disclosure as to how the skilled person would carry out control of the heater's power supply to provide the optimal vaporisation programme for the tobacco.

3. *Auxiliary request 2*

3.1 The auxiliary request 2 was not admitted into the appeal proceedings.

3.2 The auxiliary request 2 has been filed for the first time with the patent proprietor's statement of grounds of appeal.

Claims 1 (method) and 12 (device) differ from claims 1 and 12 of the auxiliary request 1 in that features F1.2.2 and F12.2.1 further include the following highlighted technical feature:

"*configured to heat a solid aerosol-forming substrate (12) by means of conduction*"

3.3 Under Article 12(6) RPBA the Board shall not admit requests which should have been submitted, or which were no longer maintained, in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.

3.4 The patent proprietor justified the admissibility of this request as a reaction to a surprising interpretation of D8 from the Opposition Division, in particular as to its disparity in relevance in comparison to its preliminary opinion in preparation to the oral proceedings. In the interest of procedural efficiency, it should also be borne in mind that the patent proprietor could not be expected to formulate all possible auxiliary requests that address each and every combination of the opponent's objections in their notice of opposition.

3.5 However, as the opponent argued, the objections based on D8 were maintained and explained throughout the opposition proceedings (see the notice of opposition and the letter dated 2 November 2023).
The fact that the Opposition Division deemed it unnecessary to discuss all objections in its annex to the summons does not render the opponent's objection regarding D8 irrelevant. Accordingly, the patent proprietor should not have been surprised when the Opposition Division followed the opponent's view regarding D8 during the oral proceedings.
Moreover, during the oral proceedings before the Opposition Division, the patent proprietor was given two chances to formulate auxiliary requests in light of the change of events (see pages 3 and 4 of the minutes

of the oral proceedings). The proprietor of the patent then filed auxiliary requests 1 and 2, which formed the basis of the decision under appeal, and it was concluded that auxiliary request 2 was allowable. Therefore, there are no convincing justifications for filing this request only at the appeal stage. The proprietor of the patent could and should have filed this request during the opposition proceedings, in response to the opponent's objections regarding D8, and at least during the oral proceedings before the Opposition Division where he had multiple chances to do so. The circumstances of the case therefore do not justify the admittance of auxiliary request 2.

4. The patent proprietor's appeal is therefore not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Wille G. Pricolo

Decision electronically authenticated