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**Datasheet for the decision
of 11 December 2019**

Case Number: T 1591/15 - 3.2.07

Application Number: 07013158.6

Publication Number: 2011604

IPC: B24B13/005, B29D11/00,
C08F290/08, C09D175/16,
C09J151/00

Language of the proceedings: EN

Title of invention:

Method for blocking a lens blank, adhesive composition and use of the latter in lens blocking

Patent Proprietor:

Satisloh AG

Opponent:

Schneider GmbH & Co. KG

Headword:

Relevant legal provisions:

EPC Art. 56

Keyword:

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 1591/15 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 11 December 2019

Appellant:
(Patent Proprietor)

Satisloh AG
Neuhofstrasse 12
6340 Baar (CH)

Representative:

Oppermann, Mark
Oppermann & Oppermann
Patentanwälte
Am Wiesengrund 35
63075 Offenbach (DE)

Respondent:
(Opponent)

Schneider GmbH & Co. KG
Biegenstrasse 8-12
35112 Fronhausen (DE)

Representative:

Von Rohr Patentanwälte Partnerschaft mbB
Rüttenscheider Straße 62
45130 Essen (DE)

Decision under appeal:

**Interlocutory decision of the Opposition
Division of the European Patent Office posted on
22 May 2015 concerning maintenance of the
European Patent No. 2011604 in amended form.**

Composition of the Board:

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

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal in the prescribed form and within the prescribed time limit against the interlocutory decision of the opposition division maintaining European patent No. 2 011 604 in amended form.
- II. Opposition had been filed against the patent as a whole based on Article 100(a) EPC (lack of inventive step) and (b) EPC (insufficient disclosure).
- III. The opposition division held *i.a.* that the subject-matter of independent claims 3 and 7 of the patent as granted did not involve inventive step in view of the teaching of document D1 in combination with the common general technical knowledge of the person skilled in the art and that, therefore, the patent could not be maintained as granted, but that the then auxiliary request 3, said request consisting of a single independent claim corresponding to claim 1 of the patent as granted, meets the requirements of the EPC.
- IV. With the statement setting out the grounds of appeal, the patent proprietor requested

that the decision under appeal be set aside
and
that the patent be maintained in amended form according to the main request or according to one of the four auxiliary requests, all said requests being filed together with the statement setting out the grounds of appeal.

V. With its reply to the statement setting out the grounds of appeal, the respondent (opponent) requested

that the appeal be dismissed.

VI. The main request contains independent claims 1, 3 and 7 of the patent as granted.

Independent claim 1 of the main request corresponds to independent claim 1 of auxiliary request 3 held by the opposition division in the impugned decision to meet the requirements of the EPC. This finding was not questioned by the opponent. Thus, claim 1 is not subject of the current appeal proceedings.

Independent claim 8 of the patent as granted is not sought by the patent proprietor in the appeal proceedings at hand.

The dependent claims of the main request correspond to the respective dependent claims of the patent as granted.

Hence the current main request consists of claims 1 to 7 and 9 to 14 of the patent as granted, whereby claims 9 to 14 have been renumbered in claims 8 to 13.

Independent claims 3 and 7 of the main request read as follows:

"3. A method for blocking a lens blank (54) having a blocking face (58) of pre-determined curvature, said method comprising the steps of:

(a) providing a plurality of lens blocks (62) each comprising a lens mounting face (64) that has a pre-determined block curve, wherein said lens blocks (62)

have a few different block curves only;

(b) selecting a lens block (62) having a specific block curve depending on said curvature of said blocking face (58) of said lens blank (54) so that said block curve matches said curvature of said blocking face (58) as best as possible;

(c) mixing an adhesive composition (78) comprising in an un-polymerized state a liquid adhesive curable by UV or visible light and a filler as a non polymerizing solid;

(d) applying to at least one of said blocking face (58) of said lens blank (54) and said lens mounting face (64) of said lens block (62) said adhesive composition (78);

(e) urging said lens blank (54) toward said lens block (62) with said blocking face (58) of said lens blank (54) facing said lens mounting face (64) of said lens block (62); and

(f) generating UV or visible light and transmitting the light to said adhesive composition (78), said light being of a wavelength and an intensity and applied for a time interval sufficient to cause setting of said adhesive composition (78);

(g) wherein said filler consists of solid particles having a particle size that is equal to or less than 1 mm, and wherein a mixing ratio of said adhesive and said filler is selected to have a dimensional change and exothermic heat of polymerization of said adhesive composition (78) upon setting low enough so that the adhesive composition (78) is capable of setting without imparting undue stresses on said lens blank (54) and without de-bonding of said lens blank (54) from said adhesive composition (78)."

"7. The use in lense blocking of an adhesive composition (78) comprising:

an adhesive curable by UV or visible light that is liquid in an un-polymerized state; and a filler as a non polymerizing solid, wherein said filler consists of solid particles having a particle size that is equal to or less than 1 mm."

VII. In the present decision reference is made to the following documents from the opposition proceedings:

D1: WO 94/08788 A;

D3: WO 98/41359 A1;

D4: "Kleben - Grundlage, Technologien, Anwendungen", Gert Abenicht, 5th edition 2006, pages 158, 159, 369 and 370;

D5: EP 2 011 604 A1;

A: Printout of 5 pages from Wikipedia concerning "Pyrogenes Siliciumdioxid" (Annex A of the minutes of the oral proceedings before the Board).

VIII. To prepare the oral proceedings scheduled upon all parties' requests, the Board communicated its preliminary assessment of the case to the parties by means of a communication pursuant to Article 15(1) RPBA 2007. The Board expressed therein its preliminary opinion that the subject-matters of the independent claims 3 and 7 according to the patent proprietor's main request appeared to involve an inventive step and that, thus, the patent could be maintained in amended form on the basis of that request. In response to said communication, the patent proprietor filed an adapted description. The opponent did not respond to that communication.

IX. Oral proceedings before the Board took place on 11 December 2019. For further details on the course of the oral proceedings, in particular the matters

discussed with the appellant, reference is made to the minutes thereof.

The decision of the Board was announced at the end of the oral proceedings.

- X. The lines of argument of the parties are substantially as follows and they are dealt with in detail in the reasons for the decision.

The patent proprietor concurs with the finding in the Board's communication pursuant to Article 15(1) RPBA 2007 that the subject-matters of claims 3 and 7 according to the patent proprietor's main request involve an inventive step in view of the teaching of document D1, chosen as closest prior art, in combination with the common general technical knowledge and practice of the person skilled in the art and with document D3. It further considered the opponent's allegation that the differentiating features of claims 3 and 7 of the main request over the disclosure of D1 do not involve a technical effect as an unsubstantiated allegation which has to be disregarded.

During the oral proceedings the opponent did not address the Board's preliminary opinion expressed in its communication pursuant to Article 15(1) RPBA 2007 at all but it developed for the first time in the present opposition-appeal proceedings a new line of lack of inventive step attack based on the allegation that the differentiating features of claims 3 and 7 of the main request over the disclosure of D1 as mentioned under point 8.3 of the Board's communication according to Article 15(1) RPBA 2007 do not involve a technical effect.

Reasons for the Decision

1. *Claim 7 of the main request - Inventive step (Article 56 EPC)*
- 1.1 The opponent, considering the teaching of D1 as representing the closest prior art and based on the Board's statement under point 8.3 of its communication according to Article 15(1) RPBA 2007 that the adhesive composition of claim 7 differs from the one known from D1 in that the filler is a **non polymerizing solid** (differentiating feature a), whereby said filler consists of solid particles having a **particle size that is equal to or less than 1 mm** (differentiating feature b), denied for the first time during the oral proceedings before the Board the presence of any technical effect due to said differentiation features and argued that the skilled person seeking to find an alternative for the fillers used in D1 would be guided by a simple combination of different parts of the teachings of D1, D4, D3 and of annex A to the subject-matter of claim 7 without the involvement of an inventive activity.
- 1.2 The Board notes that the denial of a technical effect was presented for the first time in the present opposition-appeal proceedings during the oral proceedings before the Board in general terms and without any substantiation at all.
- 1.3 The Board notes that said abstract and merely speculative denial was contested by the patent proprietor and that the opponent did not substantiate its above-mentioned allegation. Therefore, the Board considers the denial of a presence of a technical

effect as a non-substantiated allegation. Given that the denial of a presence of a technical effect was the basis for the opponent's only lack of inventive step argumentation, as confirmed at the oral proceedings, which led to the reformulation of the technical problem by the opponent, and that the Board does not follow the opponent in this respect, the opponent's inventive step attack by combining different parts of the teachings of D1, D4, D3 and of annex A, that was submitted by the opponent during the oral proceedings, is not verifiable. Such a combination would be based, according to the Board, on an unallowable *ex-post-facto* evaluation of partial teachings of said documents.

- 1.4 In the absence of any substantiation of the above-mentioned opponent's allegation and in combination with the patent proprietor's contest of said allegation, the Board maintains its inventive step preliminary opinion expressed in its communication according to Article 15(1) RPBA 2007. Under points 8.1 to 8.12 of its above-mentioned communication the Board stated the following:

*"8.1 Claim 7 is directed to an adhesive composition for lens blocking comprising an adhesive curable by UV or visible light that is liquid in an un-polymerized state; and a filler, whereby the filler is a **non polymerizing solid**; and said filler consists of **solid particles** having a **particle size that is equal to or less than 1 mm**.*

8.2 D1, considered by both parties and by the opposition division as representing the closest prior art, discloses an adhesive composition for lens blocking comprising an adhesive curable by UV or visible light that is liquid in an un-polymerized state, whereby said adhesive composition may comprise a

filler (see page 5, lines 2-5; page 7, lines 7-9).

8.3 The adhesive composition of claim 7 differs from the one known from D1 in that the filler is a **non polymerizing solid** (feature 7.2), whereby said filler consists of solid particles having a **particle size that is equal to or less than 1 mm** (feature 7.3).

8.4 The Board, following the corresponding patent proprietor's arguments, considers that such filler characteristics make possible a more homogeneous mixture of adhesive composition so that not only the overall shrinkage of the adhesive composition upon setting is reduced but also the existence of local differences in the shrinkage amount and related stresses (see also paragraph 14 of the patent in suit). A further advantage consists in the fact that the adhesive composition layer can be made rather thin so that the shrinkage problem is addressed again.

8.5 The problem to be solved can therefore be seen in the provision of an adhesive composition for lens blocking comprising an adhesive curable by UV or visible light that is liquid in an un-polymerized state that specifically addresses the problems associated with shrinkage of such a radiation cured material as the bonding agent during its polymerization (see also paragraph 14 of the patent in suit).

8.6 D1 recognises that the shrinkage behavior of the lens block material is important for distortion-free lens blocking (see page 10, lines 9-14). Although D1 generally mentions (cf. page 5, lines 2-5; page 7, lines 7-9) that the blocking composition "may comprise

conventional stabilizers, fillers, nonreactive diluents, coloring agents and the like in conventional amounts", it does not place any emphasis on the filler. In fact, the blocking composition according to D1 may also comprise no fillers. On the other hand, the skilled person derives from the claims 8 and 9 of D1 the teaching to tackle the shrinking problem with a certain chemistry of the lens block material to be met. Accordingly, there is no teaching in D1 as to the nature or characteristics of the fillers that may be used in order to solve the shrinking problem.

8.7 The Board notes that thermoplastic lens block materials are according to the present invention to be avoided (see paragraph 9 of the patent in suit). Contrary to that D3 refers exclusively to thermoplastic lens block materials. Furthermore, it mentions only at two individual places fillers and their size in a thermoplastic lens block material (page 31, line 16 - page 33, line 25; page 35, lines 15-24), whereby said fillers are used in order to stiffen or reinforce the lens block material, as is well known in the art, or, as heat-absorbing constituents, to accelerate the melting of the thermoplastic block material. Therefore, the skilled person, seeking to solve the above-mentioned shrinking problem, would have no reason to take D3 into consideration, said last referring only thermoplastic lens block materials having fillers for solving different problems than the one underlying the present invention.

8.8 D4 states generally that various adhesive properties may be influenced by the addition of fillers into said adhesives. Among many other property changes, a reduction in shrinkage in order to obtain an optimum strength behavior of the adhesive layer is mentioned on

page 158 of D4. Furthermore, under quite a number of measures to reduce shrinkage listed on pages 369 and 370, also the use of fillers is to be found. A concrete suggestion, however, for adding a filler as a non-polymerizing solid in the form of solid particles having a defined particle size into an adhesive curable by UV light or visible light, whereby the so resulting adhesive composition is to be used for lens blocking, avoiding thereby lens distortion or deflection during blocking is not to be found in D4.

8.9 The Board notes that no reasoning is to be found in the whole impugned decision as to why the opposition division found that the claimed specific range of "equal to or less than 1 mm" for the filler's non polymerizing solid particle size is obvious to the person skilled in the art. Especially, the opposition division's argument in the impugned decision (see point II.6.1.3) that "the skilled person, knowing that fillers in adhesive generally reduce shrinkage, would use fillers in order to improve the adhesive composition disclosed in D1" using thereby general technical knowledge, discloses no reference to the claimed specific filler in the form of a non-polymerizing solid particles falling within a specific particle size range and it presents no supporting evidence for said allegation. Accordingly, said opposition division's argumentation cannot validly question the presence of an inventive step by the subject-matter of claim 7, said last claiming the use of a filler consisting of non polymerizing solid particles having a particle size that is equal to or less than 1 mm.

8.10 The Board further notes that the **summary of the present invention** is described in paragraphs 14 to 36,

including paragraph 31 referred to by the opponent, of D5. The information in paragraph 31 of D5 is therefore not to be considered as belonging / referring to the state of the art, as argued by the opponent. Furthermore, in said paragraph is explicitly stated that the filler largest particle size should be preferably equal to or less than 1 mm. Therefore, the Board cannot find in paragraph 31 of D5 any support for the opponent's allegation that the use of a filler largest particle size being smaller than 2 mm belongs to the general technical knowledge to the person skilled in the art and that this knowledge leads the skilled person to work out a filler particle size being equal to or less than 1 mm without the exercise of an inventive activity.

8.11 Moreover, even if for the sake of argument, the Board would accept the opponent's calculations based on the information disclosed on page 14, lines 8-11, and the table on page 15 of D1 that the layer thickness of the adhesive composition referred to therein would be of about 2 mm, this cannot be considered as a hint for a filler consisting of solid particles (they could be elastically deformable particles for example), whereby said particles have a particle size that is equal to or less than 1 mm.

8.12 As a result from the above considerations, starting from D1 as representing the closest prior art and due to the fact that none of the prior art documents in the file discloses the differentiating features mentioned under point 8.3 above and that the Board considers that said differentiating features do not belong to the general technical knowledge of the person skilled in the art, the Board concludes that due to lack of any hint in the prior art documents in the

file and in the general technical knowledge of the person skilled in the art towards the differentiating features mentioned under point 8.3 above, the skilled person would not arrive at the subject-matter of claim 7 without the exercise of an inventive activity."

1.5 The above-mentioned preliminary finding of the Board has not been commented on nor has it been contested by the opponent during the appeal proceedings.

1.6 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.

1.7 As a consequence, the subject-matter of claim 7 involves an inventive step.

2. *Claim 3 of the main request - Inventive step (Article 56 EPC)*

The above-mentioned arguments and findings by the Board apply *mutatis mutandis* to claim 3 of the main request, as also conceded by both parties. As a consequence, the subject-matter of claim 3 involves also an inventive step.

3. Since the patent proprietor convincingly demonstrated the incorrectness of the decision under appeal in respect of the issue of inventive step of the subject-matters of claims 3 and 7 of the main request, and because none of the opponent's objections discussed above is considered persuasive, the Board finds that the decision under appeal is to be set aside and that the patent is to be maintained on the basis of the patent proprietor's main request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent as amended in the following version:

description

pages 2 to 4

filed with letter dated
5 December 2019

pages 5 to 12

of the patent specification

claims

1 to 13

filed as main request with letter
dated 29 September 2015

drawings

1 to 11

of the patent specification

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated