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**Datasheet for the decision
of 14 March 2023**

Case Number: T 1828/19 - 3.3.10

Application Number: 12181578.1

Publication Number: 2700683

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C08K7/22, C08K5/00, C08K3/36,
B32B7/12, B32B15/092,
B32B37/12, B21D39/02

Language of the proceedings: EN

Title of invention:
Structural adhesive film

Patent Proprietor:
3M Innovative Properties Company

Opponent:
tesa SE

Headword:

Relevant legal provisions:
EPC Art. 83, 107, 108
EPC R. 99(1), 99(1)(c), 99(2)

Keyword:

Admissibility of appeal - (yes) - notice of appeal - request
defining subject of appeal - requests in the grounds of appeal
different from requests in the notice of appeal
Admissibility of request different from request in the notice
of appeal - (yes)
Sufficiency of disclosure - (yes)

Decisions cited:

Catchword:



Beschwerdekammern

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Case Number: T 1828/19 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 14 March 2023

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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 17 April 2019
revoking European patent No. 2700683 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chair M. Kollmannsberger
Members: R. Pérez Carlón
T. Bokor

Summary of Facts and Submissions

- I. The appellant (patent proprietor) lodged an appeal against the decision of the opposition division to revoke European patent No. 2700683.
- II. Notice of opposition had been filed on grounds including insufficiency of disclosure (Article 100(b) EPC).
- III. Claim 1 of the patent as granted, which is the appellant's main request, reads as follows:

"A structural adhesive film comprising a thermosettable composition, which comprises:

- a) from 40 to 60 wt% of an epoxy compound having an average epoxy equivalent weight of less than 250 g/equivalent;*
- b) from 10 to 50 wt% of a thermoplastic resin having a softening point comprised between 60°C and 140°C;*
- c) from 2 to 15 wt% of an epoxy curing agent; and*
- d) optionally, a toughening agent;*

wherein the weight ratio of said epoxy compound and said thermoplastic resin, and optionally the amount of said toughening agent are selected such as to provide said structural adhesive film with an elongation at break of at least 60% when measured according to tensile test DIN EN ISO 527; and

wherein the weight ratio of said epoxy compound and said thermoplastic resin is comprised between 0.8 and 4."

IV. The following documents are cited in the present decision:

D21 Elongation at break of Ex. 1 as determined by inventors

D22 Glasübergangstemperatur, Wikipedia, retrieved 13 August 2019

D23 Glass transition, Wikipedia, retrieved 13 August 2019

D24 Widmann, Riese, Thermoanalyse, 1990 Hüthig Buch Verlag GmbH Heidelberg, pages 34 to 37

D25 <https://www.gabrielchem.com/product/pkhp-200-powder/> with copyright from 2019

D26 <https://www.gabrielchem.com/product/pkhh-pellets/> with copyright from 2019

D27 Experimental report EP 2 700 683 by Dr. Elisabeth Cura dated 14 August 2019

V. The opposition division concluded that the invention was not disclosed in a manner sufficiently clear and complete for it to be carried out by a skilled person. The patent contained no examples of the claimed invention, as example 2 was faulty. The experimental evidence filed as D21 could not remedy that deficiency. The patent did not provide enough information to make it possible to select suitable starting materials, and was no more than an invitation to perform a programme of research. A further reason for the lack of sufficient disclosure was that the softening point of component b) was an undefined parameter, as different methods led to different values. Additionally, there was no evidence that component a) of example 1 had the required softening point.

VI. The appellant's arguments were as follows.

The patent contained sufficient information to enable the skilled reader to obtain films having the required elongation at break. For that reason, the claimed invention was sufficiently disclosed for it to be carried out by a person skilled in the art. There was in fact no evidence which could prove the contrary.

At the time of filing the statement of grounds of appeal, Article 12(2) RPBA 2007 applied. Documents D22 to D26 and experimental evidence D27 were a response to the reasoning in the appealed decision and should be admitted into the proceedings. During oral proceedings before the board, the appellant stated that the documents need only be discussed if they became more relevant than those already on file.

The appellant had no objection to the case being remitted to the opposition division for further prosecution.

VII. The respondent's arguments were as follows.

The appeal should be rejected as inadmissible for a number of reasons. There was a discrepancy between the requests in the notice of appeal and in the statement of grounds of appeal. The appellant's requests were not clear, nor was their order. Lastly, the auxiliary requests had not been substantiated, as the appellant had merely identified the amendments made but provided no argument regarding any other issue.

The notice of appeal requested that the patent be maintained in amended form. The appellant's main request in the statement of grounds of appeal, however, was that the patent be maintained as granted. Should the appeal be admissible, the main request should not

be admitted into the proceedings.

The claimed invention was not sufficiently disclosed, if only for the reasons given by the opposition division in the contested decision. In addition, the patent did not disclose embodiments having an elongation at break at the lower end of the claimed range, and the specified elongation at break did not set any upper limit. For these reasons too, the disclosure was insufficient.

Documents D22 to D26 and experimental evidence D27 could and should have been provided earlier. For this reason, they should not be admitted into the proceedings.

The respondent had no objection to the case being remitted to the opposition division for further prosecution if the appeal were not rejected as inadmissible, the appellant's main request were admitted and the grounds for opposition under Article 100(b) did not prevent maintenance of the patent as granted.

- VIII. In a communication dated 9 November 2020, the board informed the parties that it was likely to consider the appeal admissible. The main request was likely to be admissible too. The claimed film would appear to be sufficiently disclosed.
- IX. Oral proceedings before the board of appeal took place on 14 March 2023, by videoconference at the request of both parties.
- X. The parties' final requests were as follows.

The appellant requested that the decision under appeal be set aside and the patent maintained as granted, or that the case be remitted to the opposition division for further examination of the patent as granted, or that the patent be maintained with the claims of one of auxiliary requests 12 to 19, which had been filed with the statement of grounds of appeal and corresponded to requests made during the opposition.

The respondent requested that the appeal be rejected as inadmissible, or dismissed.

XI. At the end of the oral proceedings, the decision was announced.

Reasons for the Decision

1. Appeal's admissibility

1.1 Rule 99(1)(c) EPC requires the notice of appeal to contain a request defining the subject of the appeal. Rule 99(2) EPC requires the appellant to indicate in the statement of grounds of appeal the reasons for setting aside the decision impugned and the facts and evidence on which the appeal is based.

In its notice, the appellant requested that the decision under appeal be set aside, and identified the appealed decision. It also requested that the patent be maintained "as amended during oral proceedings". This request defines the subject of the appeal, as required by Rule 99(1)(c) EPC.

The opposition division revoked the patent because it considered the claimed invention not sufficiently disclosed for it to be carried out by a skilled person.

In the grounds of appeal, the appellant gave reasons why the opposition division's conclusion was not correct, as required by Rule 99(2) EPC.

The appellant's main request can be identified without any doubt, namely that the decision be set aside and the patent maintained as granted.

The appeal is thus admissible.

- 1.2 The respondent requested that the appeal be rejected as inadmissible. The board informed the parties in a communication that it was likely to consider the appeal admissible. At the oral proceedings before the board, the respondent provided no further arguments in this respect and relied on its written submissions. The respondent's written arguments are addressed below.

- 1.2.1 Discrepancies of the appellant's requests

In its notice of appeal, the appellant requested that "the decision be set aside and the patent maintained as amended during oral proceedings".

In the statement of grounds of appeal, however, the appellant requested that the decision be set aside and the patent be maintained "as granted or in amended form".

The respondent argued that the appeal was inadmissible solely in view of this discrepancy.

Rule 99(1)(c) EPC requires the notice of appeal to contain a request defining the subject of the appeal.

The appealed decision had a single legal effect:

revocation of the patent. The appellant clearly requested in its notice that this decision be set aside; this is the subject of the appeal (Case Law of the Boards of Appeal (CLBA), 10th edition 2022, V.A. 2.5.2.c).

There is no legal basis for the assumption that the request in the notice of appeal "that the patent be maintained as amended in the oral proceedings" was a withdrawal of any other request pending before the opposition division and forming the basis of the impugned decision, thus irrevocably limiting the scope of the appeal by excluding from it the patent as granted. It is settled case law that, as required by Rule 99(2) EPC, the proprietor needs to specify the scope of its request for maintenance of the patent only in the statement of grounds of appeal (CLBA, 10th edition 2022, V.A.2.6.1). This is implied by the wording of Rule 99(2) EPC: "the appellant shall indicate ... the extent to which [the decision impugned] is to be amended". The grounds of appeal do not need to be limited by the requests in the notice of appeal. There is no reason why the legal consequence of a discrepancy between the notice and the grounds should be the inadmissibility of an appeal. Rule 99 EPC is silent in this respect, and no other relevant legal provision is known to the board that would stipulate such a legal effect. Nor is the board aware of any applicable case law to that effect.

1.2.2 The appellant did not narrow down its request

The respondent argued that the requests in the statement of grounds of appeal did not restrict the original requests in the notice of appeal but went beyond them. For this reason too, the appeal should be

rejected as inadmissible.

However, the board fails to find any legal basis for the inadmissibility of an appeal as a consequence of a change in the scope of claim requests between the notice of appeal and the statement of grounds of appeal. As stated above, a patent proprietor is in no way required to define the form in which a patent is to be maintained at the time of the notice of appeal; this need only be done in the statement of grounds of appeal. Nor would it make any sense to require an applicant or patent proprietor to define the specific claim requests in the notice of appeal and yet to provide the corresponding arguments only in the grounds of appeal. It could well be that the appellant requested something different in the statement of grounds of appeal from its original request, as regards the scope for maintaining the patent. In the absence of any legal basis that would prohibit such a change of scope, the appellant was free not to define its claim requests until later, within the time limit for filing the grounds of appeal as stipulated by Article 108 EPC, last sentence. Thus, no procedural error is apparent to the board, let alone an error that would result in inadmissibility of the appeal.

1.2.3 Lack of clarity of the appellant's requests

The respondent further argued that the appellant's requests on page 2 of the grounds were not clear, and nor was the order of the requests. For this reason too, the appeal should be rejected as inadmissible.

However, the board had no difficulty in interpreting the appellant's requests in the statement of grounds of appeal, as reflected in point 2.1 of the board's

communication dated 9 November 2020, even if it was not completely clear whether the request to remit the case preceded or followed the request that the patent be maintained with the claims of one of the auxiliary requests. Furthermore, even if the requests were not totally clear, this would not be a reason for rejecting the appeal as inadmissible.

1.2.4 Lack of reasoning

The respondent also argued that the appellant provided no reasons why the patent should be maintained with the claims of one of the auxiliary requests.

However, this is not an issue affecting the admissibility of the appeal. The legal consequence of the opposition division's decision was the revocation of the patent. This is the subject of the present appeal. The reason for revocation was the opposition division's conclusion that the claimed invention was not sufficiently disclosed for it to be carried out. It is not disputed that the appellant provided arguments as to why this conclusion should be overturned and its main request (claims as granted) should be allowed. This suffices for the appeal to be admissible. The absence of reasons for some requests may at most lead to those requests not being admitted by the board, but, as long as there are recognisable reasons in support of at least one claim request, the board does not see what admissibility condition of Articles 106 to 108 or Rule 99 EPC has not been fulfilled. In the present case, the statement of grounds of appeal makes it abundantly clear that the appeal grounds on the issue of sufficiency apply at least to "the patent", implying that the appellant argues that the claims as granted are allowable; this is also consistent with its main

request as stated in the grounds of appeal.

- 1.3 The respondent's arguments failed to convince the board. The appeal is thus admissible.
2. Admissibility of the appellant's main request
 - 2.1 Using the reasons provided in points 1.2.1 to 1.2.3 above, the respondent also argued that the appellant's main request that the patent be maintained as granted should not be admitted into the proceedings, essentially for the same reasons as those given for the inadmissibility of the appeal.
 - 2.2 The reasons given by the board above also apply to this argument by the opponent. In the same way as a change in the claim requests does not make an appeal inadmissible, the previous, possibly narrower claim request in the notice of appeal does not prevent a party from making broader requests in the grounds of appeal; such an inference cannot be derived from the provisions of Articles 106 to 108 and Rule 99 EPC or from any other relevant provision. No other circumstance is apparent to the board which could have made it impossible for the patent proprietor to admissibly request maintenance of the patent in granted form. The statement of grounds of appeal clearly defines the request that the patent be maintained as granted as the appellant's main request, and provides reasons why the opposition division's conclusion on the issue of sufficiency of disclosure should be overturned; hence reasons were given for the request as required by Rule 99(2) EPC. The patent as granted was the main request examined by the opposition division and was decided upon in the appealed decision. The appellant (proprietor) is adversely affected, as it had

made this request (Article 107 EPC). Nor is there any reason to hold inadmissible the very request which forms the basis of the impugned decision (Article 12(4) RPBA 2007).

3. Sufficiency of disclosure

3.1 Claim 1 of the granted patent relates to a structural adhesive film comprising a thermosettable composition. Said composition is defined in terms of three types of components a) to c) and their proportions:

a) from 40 to 60 wt% of an epoxy compound having an average epoxy equivalent weight of less than 250 g/equivalent;

b) from 10 to 50 wt% of a thermoplastic resin having a softening point comprised between 60°C and 140°C;

c) from 2 to 15 wt% of an epoxy curing agent;

wherein the weight ratio of said epoxy compound a) and said thermoplastic resin b) is comprised between 0.8 and 4.

Claim 1 further requires the film to have an elongation at break of at least 60%.

3.2 The requirements of sufficiency of disclosure are met if the claimed invention can be carried out by a skilled person without undue burden, using common general knowledge and having regard to the information in the patent (CLBA, 10th edition 2022, II.C.5.4).

If an essential feature of the invention is expressed by a parametric definition, the question is whether the parameter is so defined that a skilled person, on the basis of the disclosure of the patent as a whole and

using their common general knowledge, could identify, without undue burden, the technical measures leading to the claimed subject-matter (CLBA, 10th edition 2022, II.C.5.5).

When carrying out the invention, a reasonable amount of trial and error is allowable, provided that a skilled person finds information leading necessarily and directly towards success through the evaluation of initial failures (CLBA, 10th edition 2022, II.C.6.7).

3.3 It was undisputed that the elongation at break of a film is a property well known in the art. Claim 1 requires it to be measured by a specific, standardised protocol.

It was also undisputed that both epoxy compounds a) and thermoplastic resins b) are known from the prior art. The patent discloses commercially available examples of these substances, see paragraphs [0019] and [0025].

3.4 Claim 1 requires the proportions of components a) and b) to be selected in such a way that an elongation at break of at least 60% is obtained. The issue under sufficiency of disclosure is whether the available information allows a skilled person to reliably obtain embodiments of the claimed film having an elongation at break over that threshold.

3.5 The opposition division concluded that claim 1 was no more than an invitation to perform a programme of research. The claimed invention required the combination of three broad classes of components in different proportions. It could only be established by trial and error whether a combination of the required components had an elongation at break over the required

threshold.

- 3.6 However, there is no evidence on file of films having the components defined in claim 1 in the required proportions of which the elongation at break is *not* more than 60%.

The respondent has measured the elongation at break of a number of compositions of the prior art allegedly having the required components and proportions (see table on page 23 of the reply to the statement of grounds of appeal). The values obtained ranged from 170% to 400%.

The respondent thus found no insurmountable difficulty in putting the claimed invention into practice and obtaining working embodiments of the claimed film.

The respondent argued that the respondent's chemists did not represent a skilled person, but had a level of skill well above that of the average skilled person. The board has no reason to disagree with this assessment. However, the experiments submitted by the respondent only required identification of the components and proportions of the compositions of the prior art, formulation of these, where necessary finding alternatives to the components which were no longer commercially available, and measurement of a well-known property by a standardised protocol. The board does not see why this could not have been carried out by an "average" skilled person.

- 3.7 The respondent also argued that there were no examples in the patent according to the claimed invention. The film of example 1 had the components and proportions required by claim 1 but its elongation at break was not

provided. Example 2 was manifestly faulty, as the proportions of the components added up to 148%.

The board agrees with the respondent and the opposition division that example 2 is faulty and that no obvious correction can be envisaged.

During the opposition, the appellant filed experimental evidence D21, according to which the elongation at break of the film of example 1 was 944%. Both the respondent and the opposition division made the criticism that D21 lacked any experimental protocol. However, it seems highly improbable to the board that, even if one assumes significant deviations from the experimental conditions disclosed in the patent, this could possibly change the results so much so that the measured film would show an elongation at break below the required threshold of 60%.

- 3.8 The respondent also argued that the patent did not provide any examples at the lower end of the required elongation at break. The elongation at break of all the available films, including those in the post-published evidence, were an order of magnitude higher.

However, this only shows that a skilled person could easily obtain working embodiments of the claimed film, not the contrary. Sufficiency of disclosure of the claimed adhesive films does not require films having every conceivable elongation at break within the set boundaries to be available to a skilled person.

- 3.9 Making reference to the decision of the Bundesgerichtshof [Federal Court of Justice] BGH-X ZR 32/17, the respondent argued that the absence of an upper end to the range of the required elongation at

break also rendered the claimed invention insufficiently disclosed.

The board is in no doubt that elongation at break cannot be increased indefinitely. However, the board sees no reason why this could render the claimed invention insufficiently disclosed. The issue is whether working embodiments of the claimed invention can be obtained, not whether an embodiment having every conceivable elongation at break is available to a skilled person. This argument is thus not convincing.

- 3.10 The opposition division concluded that the feature of component b) of the film of claim 1, that it should have a softening point between 60°C and 140°C, also rendered the claimed invention insufficiently disclosed. It was known that the softening point was dependent on the method of measurement, which was not limited by the claim. There was thus no guidance on which thermoplastic resins could lead to a film having the required elongation at break.

However, the softening point is a property often provided by the producers of commercial resins as part of their product specifications. A skilled person has at their disposition thermoplastic resins as specified by claim 1, see paragraph [0025] of the patent. In addition, there is no evidence on file that some resins allegedly having the required softening point could not form films having the required elongation at break. This argument is thus also unconvincing.

- 3.11 The board thus concludes that the ground for opposition of Article 100(b) EPC does not prevent maintenance of the patent as granted.

4. Remittal

The primary object of appeal proceedings is to review the decision under appeal in a judicial manner. Article 111(1) EPC allows a board to remit a case to the department responsible for the appealed decision. The decision under appeal only dealt with the issue of sufficiency of disclosure, and this is a special reason under Article 11 RPBA 2020. Neither of the parties objected to remittal.

5. Other issues

5.1 The respondent requested that documents D22 to D27, filed by the appellant with the statement of grounds of appeal, not be admitted into the proceedings. Admission of these documents was not discussed at the oral proceedings and this decision does not rely on any of them. Whether they should be admitted into the proceedings can thus be left undecided by the board.

5.2 Given that the main request of the appellant succeeds in respect of the decisive issue of sufficiency, the board need not take a decision on the auxiliary requests.

Order

For these reasons it is decided that:

The decision under appeal is set aside.

The case is remitted to the opposition division for further prosecution.

The Registrar:

The Chair:



C. Rodríguez Rodríguez

M. Kollmannsberger

Decision electronically authenticated