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**Datasheet for the decision  
of 27 January 2026**

**Case Number:** T 0176/24 - 3.3.09

**Application Number:** 15195400.5

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**Language of the proceedings:** EN

**Title of invention:**  
MULTILAYER STRUCTURAL ADHESIVE FILM

**Patent Proprietor:**  
3M Innovative Properties Company

**Opponent:**  
L & L Products Europe S.A.S.

**Headword:**  
Multilayer structural adhesive film/3M

**Relevant legal provisions:**  
RPBA 2020 Art. 12(2), 12(4), 13(2)  
EPC Art. 56

**Keyword:**

Amendment to case - requirements of Art. 12(2) RPBA 2020 met  
(yes) - amendment within meaning of Art. 12(4) RPBA 2020 (no)  
Amendment after the communication pursuant to Article 15(1)  
RPBA - taken into account (no)  
Inventive step - auxiliary requests 4 and 5 (no)



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Case Number: T 0176/24 - 3.3.09

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.09**  
**of 27 January 2026**

**Appellant:** L & L Products Europe S.A.S.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
11 December 2023 concerning maintenance of the  
European Patent No. 3170657 in amended form.**

**Composition of the Board:**

**Chairman** A. Haderlein  
**Members:** M. Ansorge  
G. Decker

## Summary of Facts and Submissions

- I. The opponent (appellant) lodged an appeal against the opposition division's interlocutory decision holding auxiliary request 4 allowable.
- II. With its notice of opposition, the opponent had requested that the patent be revoked *inter alia* on the grounds for opposition under Article 100(a) EPC (lack of inventive step).
- III. The opposition division had decided that the subject-matter of claim 1 of the patent as granted was not novel over D10, and that the subject-matter of claim 1 of auxiliary request 1 did not involve an inventive step in view of D10 taken in combination with D15. Auxiliary request 4 was considered to be allowable. In particular, the opposition division considered the subject-matter of claim 1 of that request to involve an inventive step in view of D10 taken in combination with D5, D36, D37, D41, D42 or D43.
- IV. Claim 1 of auxiliary request 4 reads as follows.

"Use of a structural adhesive film for bonding and sealing a hem flange connection between panels, the structural adhesive film comprising:

- At least one adhesive layer, the adhesive layer comprising an epoxy compound, an epoxy curing agent, a thermoplastic resin and a toughening agent, and at least one mineral filler, wherein the at least one mineral filler is capable of absorbing water, wherein the at least one mineral filler is selected from the group consisting of metal oxides and metal hydroxides

and

- At least one layer with a porous structure, the layer with a porous structure being a spunlaced or hydroentangled polyester fabric."

Claim 1 of auxiliary request 5 differs from claim 1 of auxiliary request 4 in that the feature "hydroentangled" is deleted from claim 1.

V. The following documents have been cited in the case at hand:

D10: WO 2014/031838 A1

D15: WO 2012/092332 A2

D36: J.A. Sujon, "Nonwovens Technology", 1<sup>st</sup> Edition, published by Textile Bulletin, available at "<http://documents.pub/document/nonwoven-technology.html>"

VI. Requests

The appellant requested that the decision be set aside and that the patent be revoked.

The patent proprietor (respondent) requested that the appeal be dismissed or, as an auxiliary measure, that the patent be maintained on the basis of auxiliary request 5, which had been filed during the opposition proceedings.

## **Reasons for the Decision**

1. Admittance of the appellant's arguments under item 5 of its grounds of appeal and the objection of lack of inventive step in view of a combination of D10 with D15
  - 1.1 The respondent requested that none of the appellant's arguments made under item 5 of its statement of grounds of appeal be admitted into the appeal proceedings.
  - 1.2 As outlined below, the board does not accede to the respondent's request.
    - 1.2.1 According to Article 12(4), first sentence, RPBA, any part of a party's appeal case which does not meet the requirements in Article 12(2) RPBA is to be regarded as an amendment. Any such amendment may be admitted only at the discretion of the board (see Article 12(4), second sentence, RPBA). Article 12(2) RPBA states that a party's appeal case is to be directed to the requests, facts, objections, arguments and evidence on which the decision under appeal was based.
    - 1.2.2 Under item 5 of the statement of grounds of appeal, the appellant argued that a comparison of example 2 (using the polyester nonwoven "Reemay 2016") with examples 3 to 5 of the patent (using the spunlaced wipe "Spunlaced Sandler-Sawatex<sup>®</sup> 2058" or "Spunlaced Sandler-Sawatex<sup>®</sup> 2621") was not suitable for demonstrating an improvement over the closest prior art D10. It also mentioned that none of the examples of the patent were in accordance with D10. In the appellant's opinion, a technical effect associated with a spunlaced polyester

fabric could not be derived from the examples of the patent.

1.2.3 The board is of the opinion that this line of argument had largely already been submitted during the opposition proceedings (see in particular point 31.1 of the decision). Thus, this line of argument was not completely new on appeal, but merely refined the appellant's line of argument submitted during the opposition proceedings.

1.2.4 The respondent did not explain to what extent this line of argument went beyond the submissions made in the first-instance proceedings before the opposition division. It argued that these arguments had, at least in part, not been discussed during the opposition proceedings, and had not been part of the submissions considered by the opposition division when it arrived at the conclusions resulting in the decision. The latter statement does not support the respondent's allegation. As outlined above, the appellant's line of argument had largely already been submitted during the opposition proceedings, and is merely further refined on appeal.

In view of the above, the appellant's line of argument under item 5 of its statement of grounds of appeal does not constitute an amendment of its appeal case within the meaning of Article 12(4), first sentence, RPBA, and does not therefore need to be specifically admitted.

1.3 In addition, the respondent argued that the appellant, when arguing lack of inventive step in the statement of grounds of appeal, had introduced D15 as a document to be combined with D10. The respondent was of the opinion that the inventive-step objection based on a

combination of D10 with D15 should not be admitted into the appeal proceedings, because it had been late-filed.

- 1.4 However, as outlined below, the appellant did not introduce D15 as a new combination document into its objection of lack of inventive step starting from D10 as the closest prior art.
  - 1.4.1 In the decision under appeal, the opposition division had already found that the subject-matter of claim 1 of what was then auxiliary request 1 did not involve an inventive step in view of a combination of D10 and D15 (see point 24 of the decision). It is evident that this combination of documents also applies to auxiliary request 4, claim 1 of which differs from claim 1 of what was then auxiliary request 1 merely in that the nonwoven polyester fabric is limited to a spunlaced or hydroentangled polyester fabric. It cannot be found in the proceedings before the opposition division, including the minutes of the oral proceedings and the written submissions, that the appellant raised a completely separate objection of lack of inventive step that did not use D15 as a combination document in addition to D10 as the starting document. On the contrary, in its objections of lack of inventive step in respect of auxiliary request 4, the appellant referred to the arguments used against auxiliary request 1 (see point 6.4, first sentence, of the minutes of the oral proceedings before the opposition division). Thus, the objection of lack of inventive step in view of a combination of D10 with D15 is not a new objection raised for the first time on appeal.
    - 1.4.2 As a consequence, for the same reasons as set out in point 1.2 above, this combination of documents is considered in the case at hand.

2. Admittance of the respondent's line of argument directed to new effects over those mentioned in its reply to the grounds of appeal, submitted by letter dated 18 December 2025 (Article 13(2) RPBA)
- 2.1 In its reply to the grounds of appeal, the respondent relied almost exclusively on the opposition division's conclusion that the combination documents proposed by the appellant would not have been taken into account by a skilled person at all. In that reply, the respondent further argued that the appellant had provided no arguments as to why the skilled person would have consulted documents on a remote technical field in order to solve a problem in the field of structural adhesive films. This was the only reason given in the decision as to why the claimed subject-matter was considered to involve an inventive step over D10 as the closest prior art. With respect to the question of whether there was an improvement over the closest prior art, in that reply the respondent submitted that the inclusion of a spunlaced or hydroentangled polyester layer in a structural adhesive prevented bubble formation.
- 2.2 After receiving the board's communication pursuant to Article 15(1) RPBA, in its letter of 18 December 2025 - and for the first time during the appeal - the respondent relied on further technical effects allegedly derivable from the distinguishing features "mineral filler" and "spunlaced or hydroentangled polyester fabric". As regards the use of a mineral filler, it was of the opinion that improved corrosion resistance was obtained, due to the use of a water-absorbing metal oxide or metal hydroxide mineral filler. As regards the feature "spunlaced or

hydroentangled polyester fabric", it was of the opinion that, apart from bubble formation being prevented, a good visual appearance was obtained, i.e. no gaps appeared between the adhesive tape and the panel.

- 2.3 The board shares the appellant's view that relying on these further technical effects, which go beyond the effect of preventing bubble formation, is an amendment to the respondent's appeal case, the admittance of which is to be assessed in accordance with Article 13(2) RPBA.
- 2.4 According to Article 13(2) RPBA, any amendment to a party's appeal case after notification of a communication under Article 15(1) RPBA is, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.
- 2.5 In its reply to the grounds of appeal, the respondent relied only on the alleged effect of bubble prevention. No other effects were mentioned. In this context, it is noted that the appellant argued explicitly in its statement of grounds of appeal why, in its opinion, no effect over the closest prior art was demonstrated that had its origin in the distinguishing features. In addition, insofar as what was then auxiliary request 1 was concerned, the opposition division also concluded that no improvement over D10 could be identified. While it is true that the opposition division did not explain in its decision whether it was of the opinion that there was an effect resulting from the feature "spunlaced or hydroentangled polyester fabric", it is noted that the appellant provided arguments in its statement of grounds of appeal as to why, in its opinion, no improvement over D10 could be identified.

In its reply, the respondent did not respond to this objection, which had been raised in the proceedings before the opposition division and was maintained by the appellant in the statement of grounds of appeal. There is no apparent reason why the respondent did not respond to this objection in its reply to the appeal, i.e. in a timely manner, and why it did not already present its complete case with the reply to the grounds of appeal (as required by Article 12(3) RPBA). Given this situation, no exceptional circumstances can be identified which could justify taking the newly alleged effects into account in the appeal proceedings.

In view of the above, the respondent's amendments introduced by its letter of 18 December 2025, i.e. relying on newly alleged effects resulting from the distinguishing features over D10, are not taken into account in the case at hand (Article 13(2) RPBA).

3. Inventive step (auxiliary request 4)
  - 3.1 The appellant argued that the subject-matter of claim 1 of auxiliary request 4 did not involve an inventive step in view of D10 as closest prior art in combination with D15 and the skilled person's common general knowledge.
  - 3.2 As outlined below, the board shares the appellant's opinion that the claimed subject-matter is obvious in the light of D10 as the closest prior art.
    - 3.2.1 The two parties agreed that D10 qualifies as an appropriate closest prior-art document in the case at hand. The board shares this view.

3.2.2 D10 discloses the use of a structural adhesive film for bonding a first metal part and a second part, preferably for hem flange bonding of a first metal part and a second part (see claim 17 of D10). The structural adhesive film comprises a thermosettable composition, which comprises a) an epoxy compound having an average epoxy equivalent weight of less than 250 g/equivalent, b) a thermoplastic resin having a softening point comprised between 60°C and 140°C, c) 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 (see claim 1 of D10). The composition may comprise a filler such as expanded perlite, commercially available under the trade designation Eurocell<sup>®</sup> from Europerl (see page 11, lines 6 to 18, of D10). The structural adhesive film may also include an open nonwoven layer such as a scrim (see page 13, lines 8 and 9, of D10).

3.2.3 With respect to the differences over D10, the parties had different opinions. While the appellant was of the opinion that the subject-matter of claim 1 of auxiliary request 4 differed from D10 only by the feature "spunlaced or hydroentangled polyester fabric", the respondent submitted that the presence of a mineral filler was a further difference. When considering selecting the alternative that the structural adhesive film has an open nonwoven layer such as a scrim a first selection in D10, the board shares the respondent's view that choosing expanded perlite as the filler would represent a second selection. Thus, the board shares

the respondent's opinion that there are two distinguishing features over D10.

3.2.4 Accordingly, the subject-matter of claim 1 of auxiliary request 4 differs from D10 in that the porous structure is a spunlaced or hydroentangled polyester fabric, whereas D10 discloses an open nonwoven layer such as a scrim (first distinguishing feature). In this context, it is noted that a spunlaced or hydroentangled fabric is a nonwoven fabric. In addition, the presence of a mineral filler capable of absorbing water, selected from the group of metal oxides and metal hydroxides, in the adhesive layer is considered a difference over D10, since D10 discloses the metal-oxide-containing expanded perlite, which is capable of absorbing water, in a list of suitable fillers (second distinguishing feature).

3.2.5 With respect to the effect resulting from the first distinguishing feature, the respondent was of the opinion that the prevention of bubble formation was an effect resulting from this difference over D10. It relied on a comparison of the comparative example in Table 3 of the patent (in which the adhesive film had no porous layer) with examples 3 to 5 (having a spunlaced wipe as a nonwoven fabric).

The board is not convinced by this line of argument. The comparative example of Table 3 of the patent, which shows bubble formation, is not representative of D10, since D10 already discloses an open nonwoven layer such as a scrim (see page 13, lines 8 and 9, of D10). Bubble formation occurred only in the comparative example, which does not contain any porous layer, and not in examples having a nonwoven layer or even a woven layer.

Under these circumstances, preventing bubble formation cannot be identified as an improvement over D10.

With respect to the second distinguishing feature, the effects alleged by the respondent are not taken into account (cf. 2.3 to 2.5 above).

3.2.6 Since no technical effects are identified for either distinguishing feature, the objective technical problem is to provide an alternative structural adhesive film for bonding and sealing a hem flange connection between panels.

3.2.7 Regarding the question of obviousness, the board comments as follows.

(a) With respect to the first distinguishing feature (spunlaced or hydroentangled polyester fabric) a skilled person seeking a solution to the problem to be solved would consider D15, which also deals with structural adhesive films, i.e. a related technical field.

D15 teaches a nonwoven scrim (see page 4, lines 8 to 14, of D15), including a nonwoven polyester fabric (see page 10, lines 12 to 18, of D15) embedded in the adhesive layer of the structural adhesive film. Contemplating such a nonwoven polyester fabric is considered an obvious and arbitrary choice for a skilled person in this technical field. The board shares the appellant's opinion that it is within the skilled person's common general knowledge that spunlaced or hydroentangled nonwovens are a common type of nonwovens. A skilled person seeking a solution to the problem to be solved would consider a spunlaced

or hydroentangled nonwoven as an appropriate type of nonwoven.

- (b) In this context, the respondent argued that it could be derived from D36 that hydroentangled nonwovens were used in only 6% of automotive applications (see the Figure on the bottom on page 27 of D36). In addition, as could be taken from the Figure at the top of page 27 of D36, applications which could be considered to cover or come close to hem flange connections only amounted to about 2% of all automotive applications. In the respondent's opinion this supported the view that the use of a spunlaced or hydroentangled nonwoven was not obvious to a skilled person.

The board is not convinced by this line of argument.

A skilled person is already taught by the starting document D10 that an open nonwoven layer such as a scrim can be used in a structural adhesive film for hem flange bonding. The board is of the opinion that a skilled person would not consider nonwoven scrims unsuitable for hem flange bonding, but would only consider those having the required properties for this particular use. D36 does not show that a skilled person would not contemplate a spunlaced or hydroentangled nonwoven. While it is true that hydroentangled nonwovens are not the majority of nonwovens used in automotive applications, the same holds true for hem flange bonding, which is a very specific application within automotive applications. A skilled person is familiar with the requirements of a fabric for structural adhesive films to be used for hem flange connection.

Selecting a spunlaced or hydroentangled nonwoven is considered an obvious measure to a skilled person in this technical field who is seeking nonwoven scrims suitable for the claimed use. This is within the common general knowledge of a skilled person.

- (c) With respect to the second distinguishing feature, the board shares the opposition division's conclusion under point 24.3 of the decision that contemplating a metal oxide as a mineral filler capable of absorbing water is taught in D10 itself. The opposition division and the appellant both considered expanded perlite, which contains metal oxides that absorb water, as disclosed on page 11, lines 15 to 17, of D10, to be a mineral filler as defined in claim 1. The respondent did not contest this finding during the opposition proceedings or in its reply to the grounds of appeal. In addition, the respondent had itself noted during the opposition proceedings that the distinguishing feature of a mineral filler had no effect on bubbling (see point 24.2 of the decision).
- (d) For the reasons outlined above, the claimed subject-matter is obvious to a skilled person starting from D10 as the closest prior art.

3.2.8 In view of the above, the subject-matter of claim 1 of auxiliary request 4 does not involve an inventive step over D10 as the closest prior art in combination with D15 and the skilled person's common general knowledge.

4. Claim 1 of auxiliary request 5 differs from claim 1 of auxiliary request 4 in that the feature "hydroentangled" is deleted from claim 1. In this

context, it is noted that spunlacing and hydroentanglement are practically synonyms, as correctly concluded by the opposition division under point 29.3 of the decision under appeal. This is within the skilled person's common general knowledge and is also supported by paragraph [0040] of the patent.

Thus, for the same reasons as outlined above for auxiliary request 4, auxiliary request 5 is not allowable.

5. Since there is no allowable claim set on file, the patent must be revoked.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



A. Wille

A. Haderlein

Decision electronically authenticated