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**Datasheet for the decision  
of 29 January 2019**

**Case Number:** T 0854/16 - 3.3.09

**Application Number:** 10154601.8

**Publication Number:** 2226370

**IPC:** C09J7/02

**Language of the proceedings:** EN

**Title of invention:**

Method for attaching a double-sided pressure-sensitive adhesive tape comprising a release liner

**Patent Proprietor:**

Nitto Denko Corporation

**Opponent:**

tesa SE

**Headword:**

**Relevant legal provisions:**

EPC Art. 56

RPBA Art. 12(4)

**Keyword:**

Inventive step - main request (no) - first to seventh auxiliary request (no)

**Decisions cited:**

**Catchword:**



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Case Number: T 0854/16 - 3.3.09

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.09**  
**of 29 January 2019**

**Appellant:**  
(Patent Proprietor)

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**Decision under appeal:**

**Decision of the Opposition Division of the  
European Patent Office posted on 26 January 2016  
revoking European patent No. 2226370 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chairman** W. Sieber  
**Members:** F. Rinaldi  
E. Kossonakou

## Summary of Facts and Submissions

- I. This decision concerns the appeal filed by the patent proprietor against the decision of the opposition division to revoke European patent No. EP 2 226 370.
- II. In its notice of opposition, the opponent had requested revocation of the patent based on Article 100(a) (lack of inventive step) and 100(b) EPC.
- III. The documents cited during opposition proceedings included:

D1: DE 299 01 090 U1

D2: DE 37 24 528 A1

D3: EP 2 039 506 A1.

D3 was published after the priority date of the opposed patent. However, D3 is the publication of the English translation of Euro-PCT WO 2008/004503 which was published (in Japanese) before the priority date of the opposed patent. Thus, D3 was already regarded in the opposition proceedings (appealed decision, page 2, first full paragraph) as prior art in accordance with Article 54(2) EPC.

- IV. In the appealed decision, the opposition division held that the subject-matter of claim 1 of the main request (patent as granted) fulfilled the requirements of sufficiency of disclosure but lacked inventive step in view of D2 as the closest prior art in combination with D3.

Claim 1 of the main request reads as follows:

"1. A method comprising attaching a double-sided pressure-sensitive adhesive tape comprising a pressure-sensitive adhesive body comprising at least one acrylic pressure-sensitive adhesive layer comprising bubbles and/or hollow microspheres; and a release liner arranged on at least one side of the pressure-sensitive adhesive body, wherein the release liner includes a notch and/or slit in at least one edge in a width direction of the release liner, to an adherend having a bend and/or curve, with the release liner held on one of the sides of the pressure-sensitive adhesive body and with the tape bent in the width direction, wherein the thickness of the release liner is from 20 to 300  $\mu\text{m}$ .

The opposition division also held that the subject-matter of claim 1 of auxiliary requests 1 and 2 lacked inventive step.

Compared with claim 1 of the main request, in claim 1 of auxiliary requests 1 and 2, the ratio of the length of the notch and/or slit in the width direction with respect to the full-width of the release liner was further defined to be:

- from 5 to 70% (auxiliary request 1) or
- from 30 to 70% (auxiliary request 2).

V. On 6 June 2016, the patent proprietor (the appellant) filed the statement setting out the grounds of appeal and requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or on the basis of one of the first to seventh auxiliary requests filed with it.

The **main request** and the **first** and **second auxiliary requests** were identical to the main request and auxiliary requests 1 and 2 before the opposition division (see point IV.), respectively. The third to seventh auxiliary requests were filed for the first time on appeal.

**Claim 1 of the third auxiliary request** was based on claim 1 of the second auxiliary request, with the further limitation that "the pressure sensitive adhesive body is a base-less pressure sensitive adhesive body".

**Claim 1 of the fourth to seventh auxiliary requests** was based on claim 1 of the main request and the first, second and third auxiliary requests, respectively, with the further limitation that it only referred to a notch and no longer to a slit.

- VI. The opponent (the respondent) requested in its reply to the grounds of appeal that the appeal be dismissed and that the third to seventh auxiliary requests not be admitted into the proceedings.
- VII. The board summoned the parties to oral proceedings and issued a communication setting out its preliminary opinion.
- VIII. By letter dated 28 December 2018, the appellant gave further arguments and replaced the fourth auxiliary request with a new version in which an inconsistency in dependent claim 2 was removed.
- IX. On 29 January 2019, oral proceedings were held before the board. In the course of the discussion on the

admission of the appellant's auxiliary requests, the respondent limited its request for exclusion to the third and the seventh auxiliary requests. At the end of the oral proceedings, the chairman announced the board's decision.

- X. The appellant's arguments relevant for the present decision may be summarised as follows:

Main request, inventive step:

The skilled person would not have combined the closest prior art D2 with the teaching of D3, which addressed issues that occurred in tape winding operations. Thus, the skilled person would have had no expectation that D3 would be of any help to avoid wrinkle generation and to prevent floating in the release liner, i.e. the problem addressed in the opposed patent. Even if the skilled person would have considered D3, they would have to make multiple selections within the document to arrive at the claimed combination of features. In addition, D3 did not disclose a release liner including a notch and/or slit. On the contrary, the release liner of D3 extended beyond the edges of the pressure-sensitive adhesive layer and was not suitable for a configuration including a notch and/or slit.

First and second auxiliary requests:

D2 did not contain any explicit disclosure concerning the relative length of the notch and/or slit. Such information was also not derivable from the schematic figure in D2. The comparative tests filed as "enclosure A" in opposition proceedings demonstrated that a release liner according to claim 1 of the first and second auxiliary requests showed reduced breakage.

Admission of the third and seventh auxiliary requests:

The feature which had been introduced into claim 1 of the third and seventh auxiliary requests narrowed down the claimed scope to the adhesive tape described in the example. Moreover, the amendment had been filed at the earliest stage of the appeal proceedings.

Third auxiliary request:

A base-less adhesive body was described in the opposed patent to have an advantageous curve-following performance.

Fourth to seventh auxiliary requests:

D2 did not suggest a notch instead of a slit, and the use of a notch represented a non-obvious alternative.

- XI. The respondent's arguments relevant for the present decision may be summarised as follows:

Main request, inventive step:

The distinguishing features over the closest prior art D2 were not associated with a surprising effect. The skilled person would have turned to D3 because it related to adhesive tapes, and all distinguishing features were suggested in D3. Neither the preferred width of the release liner nor the absence of notches and slits in D3 would have discouraged the skilled person from consulting it.

First and second auxiliary requests:

In view of the teaching of D2, the skilled person would have been able to establish the optimal length of the slits with a limited number of routine experiments.



Admission of the third and seventh auxiliary requests:

These requests could and should have been presented in the opposition proceedings. In addition, the third and the seventh auxiliary requests included subject-matter which had not been part of the granted claims.

Third auxiliary request:

A base-less pressure-sensitive adhesive body did not provide an inventive contribution because it was not credible that the alleged improvement was achieved with respect to all types of bases. Moreover, D3 suggested base-less adhesive materials.

Fourth to seventh auxiliary requests:

The limitation to notch did not involve an inventive step. The skilled person in the field of adhesive bandages and tapes would have been aware that slits and notches increased the flexibility of the material. D1 was evidence of this knowledge.

## **Reasons for the Decision**

### 1. *Main request - inventive step*

#### 1.1 The opposed patent

The opposed patent concerns a method for attaching a double-sided pressure-sensitive adhesive tape which is free from wrinkles and the floating of a release liner even when the double-sided pressure-sensitive adhesive tape is attached to an adherend having a bend or curve with the release liner held on one of the sides of the

pressure-sensitive adhesive body and with the tape bent in the width direction (paragraphs [0006] and [0012]). Floating means the detachment of the release liner from the pressure-sensitive adhesive body at bent or curved parts (paragraph [0004] and page 3 of the statement setting out the grounds of appeal). The adhesive tape is suited for an adherend of the type including workpieces and reinforcing materials for producing automobiles, building materials, and household electric appliances (paragraph [0087]).

## 1.2 The closest prior art

It is common ground that D2 represents the closest prior art. It discloses in column 1 a double-sided, flexible adhesive tape with a stiff release liner (lines 32 to 34) which comprises slits arranged along the left and right side edges (lines 51 and 52 and the figure). The slits prevent the stiff release liner from being bothersome and inhibiting the attachment of the tape in bends (lines 59 to 64). In other words, they facilitate the application in curves and bends of the double-sided adhesive tape while the release liner is attached to it. Moreover, the slits widen or overlap, depending on whether the release liner is stretched or squeezed (lines 52 to 54 and the figure).

## 1.3 Distinguishing features

### 1.3.1 The board pointed out in its communication that D2 did not disclose the following features:

- (a) the pressure-sensitive adhesive body comprises at least one acrylic pressure-sensitive adhesive layer;

(b) the adhesive layer comprises bubbles (and/or hollow microspheres);

(c) the thickness of the release liner is of from 20 to 300  $\mu\text{m}$ .

1.3.2 As regards the potential further distinguishing feature that the pressure-sensitive adhesive tape has to be attached to an adherend having a bend or curve, the opposition division had explained that D2 implicitly disclosed this feature (appealed decision, page 8, third full paragraph). The board can only agree with this analysis. This was not contested by the appellant.

1.4 The objective technical problem

1.4.1 The opposition division formulated the objective technical problem as the "[p]rovision of an alternative flexible double-sided adhesive tape which can be attached to a curved and/or bent adherend with a bend in the width direction of the tape and which thereby produces no wrinkling or floating of the release liner" (appealed decision, page 8, penultimate paragraph). This problem is derivable from the opposed patent (paragraph [0006]), and the parties have not contested this aspect of the decision; in particular, they have not formulated a different technical problem.

1.4.2 In this context, the appellant argued that D2 neither explicitly nor implicitly disclosed the prevention of the wrinkle and floating phenomena.

1.4.3 However, D2 addresses difficulties in attaching a double-sided adhesive tape with the release liner being held on one side of the tape (column 1, line 60 to 64), and the same is described in paragraph [0001] of the opposed patent. Both the opposed patent and D2 provide

the same solution to address this technical problem, namely the presence of slits. In view of this, the board considers that the issues of wrinkling and floating do not occur with the release liner of D2. In fact, the slits applied in the release liner described in D2 already overcome the bothersome effect of the stiff release liner and implicitly provide the prevention of the wrinkle and floating phenomena.

1.4.4 Further, the opposed patent does not demonstrate that the combination of a slit with distinguishing features (a), (b) and (c) defined above provides a surprising technical effect. Nor has the appellant argued this.

1.4.5 In view of these considerations, the board has no reason to revise the opposition division's assessment regarding the formulation of the objective technical problem.

1.5 Obviousness

1.5.1 The appellant disagreed with the appealed decision, because - in its opinion - the opposition division had failed to acknowledge that D3 addressed completely different technical issues than those described in the opposed patent and in D2. According to the appellant, D3 relates to issues that may occur in tape winding operations, such as the shifting of the tape or the peeling off of the release liner, so that air is included between the tape layers. In view of this, the skilled person would have disregarded D3 as a secondary reference.

1.5.2 The board accepts that D3 addresses technical issues arising when rolls of pressure-sensitive adhesive tapes

are prepared by bobbin winding (paragraph [0003]). Nevertheless, these tapes can be used, *inter alia*, as sealing materials for automobiles or building glasses (paragraph [0088]), fields also envisaged in the opposed patent. The tapes have a thick pressure-sensitive adhesive layer which comprises bubbles, and they are suitable for application to an adherend having a curved or irregular surface (paragraphs [0002] and [0051]). An acrylic pressure-sensitive adhesive is described as particularly preferred for the adhesive layer (paragraph [0035]). The pressure-sensitive adhesive layer described in example 1 is an acrylic-containing layer comprising bubbles. D3 also discloses a release liner thickness of preferably 10 to 300  $\mu\text{m}$ , and more preferably 50 to 200  $\mu\text{m}$  (paragraph [0080]).

Apart from that, the technical problem of avoiding wrinkles and the floating of the release liner is already solved with the release liner of D2. The task of the skilled person would simply have entailed selecting a suitable adhesive tape, for which they would have looked for an adhesive tape that can be attached with a bend in the width direction. Such a tape adapted to an irregularly shaped adherend is disclosed in D3 (paragraphs [0002] and [0051]). As mentioned above, the adhesive tapes of D3 are described for use in automobiles and building glasses, which are fields of application similar to those of the opposed patent. In view of this, the skilled person would have considered the composition of the adhesive layer described in D3. In this context, it does not matter that D3 is silent on release liners with slits because the composition of the adhesive layer and body is what the skilled person would have been concerned with in turning to D3.

1.5.3 The skilled person would then have found all the distinguishing features in D3. In fact, D3 discloses distinguishing feature (a), an acrylate pressure-sensitive adhesive layer (paragraph [0035]) and feature (b), bubble-containing pressure-sensitive adhesive tapes (paragraphs [0002] and [0051]). These two features are also disclosed in combination (example 1). In addition, D3 also suggests that the bubble-containing pressure-sensitive adhesive layer may contain a hollow microsphere (paragraph [0061]). In view of this, features (a) and (b) are readily suggested in D3, and they are also suggested in combination. As to feature (c), there is no indication in the opposed patent that the thickness of the release liner is in any way purposive. As explained above, D3 also discloses, in paragraph [0080], a release liner having a thickness in the range of claim 1. Thus, D3 also suggests distinguishing feature (c). Therefore, the skilled person starting from D2 and faced with the objective technical problem would have arrived at the subject-matter of claim 1, including features (a), (b) and (c).

1.5.4 The appellant argued that D3 related to release liners extending beyond the edges of the pressure-sensitive adhesive layer such as depicted in figures 1 and 2, reference number 1. Thus, the skilled person would have recognised that a release liner configuration as required by the present invention would not be considered suitable in D3. The skilled person would therefore not combine the teaching of D2 and D3. However, this argument is not convincing. The width of the release liner is a preferred but not essential feature of D3 (paragraph [0015] and claim 7). Moreover, it is not described as a necessary feature for enabling the rolling of the tape (paragraph [0007]). Finally,

the opposed patent, in paragraph [0021], envisages situations where the release liner and the adhesive tape do not have the same dimensions. Thus, the information regarding the dimension of the release liner of D3 would not have prevented the skilled person from considering the adhesive layer of D3.

1.5.5 The appellant also argued, by reference to paragraph [0042] of the opposed patent, that the acrylic pressure-sensitive adhesive layer including the acrylic pressure-sensitive adhesive was preferred in view of its weather resistance. However, apart from this isolated statement in the description, there is no further information on file regarding this effect. As explained above, the skilled person would already have been prompted to provide a pressure-sensitive adhesive tape which included the bubble-containing pressure-sensitive acrylic adhesive of D3. Whether or not such an adhesive material additionally exhibits the alleged weather resistance is not relevant. The board is convinced that the skilled person would have straightforwardly arrived at the claimed pressure-sensitive adhesive body comprising at least one acrylic pressure-sensitive adhesive layer.

1.6 Thus, the subject-matter of claim 1 of the main request does not involve an inventive step (Article 56 EPC).

## 2. *First and second auxiliary requests*

2.1 The subject-matter of claim 1 of the first and second auxiliary requests differs from that of claim 1 of the main request in that the ratio of the length of the notch and/or slit in the width direction with respect to the full-width of the release liner is:

- from 5 to 70% (first auxiliary request) or
- from 30 to 70% (second auxiliary request).

- 2.2 The appellant argued that D2 did not contain any disclosure relating to the length of the notch and/or slit. It was not possible to derive such information from the schematic figure of D2 either. The appellant also referred to the comparative examples filed in opposition proceedings as "enclosure A" which showed a reduced breakage of the release liner when the ratio of the length of slit in the width direction with respect to the full-width of the release liner was 70% compared to when it was 80%.
- 2.3 The board disagrees. D2 addresses the necessity to make slits in the release liner to keep an intact, uninterrupted stripe in the centre of the liner, wide enough to prevent the liner from stretching in the length direction, but narrow enough to enable all bending (column 1, lines 51 to 58). Such an arrangement is schematically shown in the figure in D2.
- 2.4 Thus, D2 already teaches that a compromise must be found between the mechanic stability and flexibility of the release liner. Adapting the ratio of the length of the notch and/or slit in the width direction with respect to the full-width of the release liner would have been an obvious measure for the skilled person to take. In doing this, the ratio of the length of the notch and/or slit in the width direction with respect to the full-width of the release liner would have been within the claimed range. The experimental confirmation presented with "enclosure A" does not alter the board's assessment concerning inventive step of the subject-matter of claim 1 of the first auxiliary requests.



2.5 With regard to claim 1 of the second auxiliary request, the range is narrower than that of the first auxiliary request. However, the reduced scope does not provide any additional, surprising effect.

2.6 Thus, the board can only confirm the appealed decision according to which the technical effect associated with the slit length would have been readily anticipated by the skilled person and the choosing of an appropriate length would have been within the scope of the skilled person's customary practice. The subject-matter of claim 1 of both the first and the second auxiliary requests does not involve an inventive step (Article 56 EPC).

### 3. *Admission of the third and seventh auxiliary requests*

3.1 The subject-matter of claim 1 of the third auxiliary request is based on claim 1 of the second auxiliary request, which further defines that the pressure-sensitive adhesive body is a base-less pressure-sensitive adhesive body. In other words, the claim defines, *inter alia*, that the pressure-sensitive adhesive body does not comprise a substrate. The same feature was also introduced into claim 1 of the seventh auxiliary request.

3.2 The respondent requested that the third and seventh auxiliary requests not be admitted into the proceedings because these requests contained subject-matter stemming from the description and not from the (granted) claims. These requests could and should have been filed earlier.

3.3 It is true that the amendment in the third and seventh auxiliary requests is based on the description, but the introduced feature brings the scope of claim 1 closer to the adhesive tape described in the example. These requests were filed at the earliest stage of the appeal proceedings, namely, together with the statement setting out the grounds of appeal. More importantly, the respondent has not explained why, in its view, these requests could and should have been filed in opposition proceedings. In particular, it has not referred to circumstances or events in the opposition proceedings supporting its statement. There being no other reason for excluding these requests from the appeal proceedings under Article 12(4) RPBA, the board admitted these requests into the proceedings.

4. *Third auxiliary request*

4.1 As regards inventive step of claim 1 of the third auxiliary request, the appellant argued that a base-less adhesive body was used in the examples, referring to paragraph [0041] of the opposed patent, in which an advantageous property of this adhesive body is described ("from the viewpoint of curve following performance, the base-less pressure-sensitive adhesive body is preferable").

4.2 The respondent pointed out that while a base made of polyethylene terephthalate might render a pressure-sensitive adhesive tape rigid, it would have been self-evident for the person skilled in the art to omit the base in such a case. This measure would increase the flexibility of the tape. The board agrees with this reasoning and observes that D3 suggests substrate-less, two-sided pressure-sensitive adhesive tapes, i.e. base-

less tapes (paragraph [0081] and figure 1). In other words, the skilled person would have already received from D3 a hint to dispense with the base (or the substrate) in an adhesive tape.

4.3 Thus, the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step (Article 56 EPC).

5. *Fourth to seventh auxiliary requests*

5.1 The fourth to seventh auxiliary requests correspond to the main request and the first, second and third auxiliary requests, respectively, in which, in claim 1, the "notch and/or slit" feature is replaced by "notch". The appellant has not argued that a notch provided an advantage over a slit, but it regarded a notch as a non-obvious alternative.

5.2 The board is not convinced. D1 relates to adhesive bandages attached to uneven surfaces, in particular, parts of the human body, such as a finger, elbow, knee and nose. The slits and notches in the adhesive bandages shown in figures 1 to 5 in D1 improve the fitting and adaptation to such surfaces. Although release liners are not mentioned in D1, the board considers that the disclosure of this document simply illustrates what would have been self-evident to the person skilled in the art anyway, namely, that both slits and notches increased the flexibility and adaptation to an irregular surface. In view of this, the subject-matter of claim 1 of the fourth auxiliary request does not involve an inventive step (Article 56 EPC).

5.3 With regard to the subject-matter of claim 1 of the fifth to seventh auxiliary requests, the appellant did not provide any additional argument in support of inventive step. As discussed above, the subject-matter of claim 1 of the first to third auxiliary requests is obvious, including the limitation to the notch (as found in the fourth auxiliary request). In the fifth to seventh auxiliary request, no contribution can be identified going beyond the juxtaposition or collocation of obvious features. Thus, the subject-matter of claim 1 of the fifth to seventh auxiliary requests also does not involve an inventive step (Article 56 EPC).

6. *Conclusion*

None of the requests of the appellant is allowable.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:



M. Cañueto Carbajo

W. Sieber

Decision electronically authenticated