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DECISION of 3 November 2005

Case Number:	T 0224/03 - 3.2.06
Application Number:	95906948.5
Publication Number:	0796073
IPC:	A61F 13/62
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Language of the proceedings: EN

Title of invention:

Composite-prelaminated closure tape system

Patentee:

MINNESOTA MINING AND MANUFACTURING COMPANY

Opponents:

Koester GmbH & Co. KG AVERY DENNISON CORPORATION

Headword:

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Relevant legal provisions: EPC Art. 83, 54(2), 56

Keyword:

"Sufficiency of disclosure (yes)" "Novelty (yes)" "Inventive step (yes)"

Decisions cited:

T 0226/85, T 0256/87, T 1208/97, T 0932/99

Catchword:

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Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0224/03 - 3.2.06

DECISION of the Technical Board of Appeal 3.2.06 of 3 November 2005

Appellant I: (Opponent I)	Koester GmbH & Co. KG Industriestr. 2 D-96146 Altendorf (DE)
Representative:	Castell, Klaus Patentanwaltskanzlei Liermann – Castell Gutenbergstrasse 12 D-52349 Düren (DE)
Appellant II: (Opponent II)	AVERY DENNISON CORPORATION 150 North Orange Grove Boulevard Pasadena, California 91103 (US)
Representative:	HOFMANN EITLE Patent- und Rechtsanwälte Arabellastrasse 4 D-81925 München (DE)
Respondent: (Proprietor of the patent)	MINNESOTA MINING AND MANUFACTURING COMPANY 3M Center P. O. Box 33427 St. Paul Mennosota 44133-3427 (US)
Representative:	Vossius & Partner Siebertstrasse 4 D-81675 München (DE)
Decision under appeal:	Interlocutory decision of the Opposition Division of the European Patent Office posted 23 December 2002 concerning maintenance of European patent No. 0796073 in amended form.

Composition of the Board:

Chairman: P. Alting van Geusau Members: G. Pricolo W. Sekretaruk

Summary of Facts and Submissions

I. The appeal is from the interlocutory decision of the Opposition Division posted on 23 December 2002 concerning the maintenance in amended form of European patent No. 0 796 073, granted in respect of European patent application No. 95 906 948.5.

Claim 1 in the form upheld by the Opposition Division reads as follows:

"1. A prelaminated composite tape from which a composite adhesive closure tape tab (20) for disposable articles can be cut, which comprises a support sheet (21) and a mechanical fastener (30), wherein the support sheet (21) has a fastening surface (22) with a bonding layer (24) and a back side surface (23), whereby a first axial extending section (25) of the support sheet (21) has a patch (26) comprising a mechanical fastener (30) disposed on the bonding layer (24), and a second axial extending section (31) of the support sheet has an exposed bonding layer (24) which is attached to an edge portion (14) of a disposable article (10) in a production process, characterized in that the tape is in a stable roll and the back side surface (23) of the support sheet (21) is provided with means for increasing the static friction of the back side surface (23) to the mechanical fastener (30)."

II. In the decision under appeal the Opposition Division considered that the patent as amended met the requirements of Article 83 EPC and that the subjectmatter of claim 1 of the patent as granted was novel and involved an inventive step in the light of the prior art, represented in particular by document

E14: WO-A-90/02540.

- III. The appellants I and II (respectively opponents I and II) each lodged an appeal, received at the EPO respectively on 14 and 18 February 2003, against this decision and simultaneously paid the appeal fee. The statements setting out the grounds of appeal were received at the EPO on 28 April and 2 May 2003, respectively.
- In a communication accompanying the summons for oral IV. proceedings pursuant to Article 11(1) of the Rules of Procedure of the boards of appeal, the Board expressed the preliminary opinion that it would appear that the expressions "stable roll" and "means for increasing the static friction" in claim 1 did not define precise restrictions and thus were to be interpreted broadly. The Board further stated that it would appear that although E14 mentioned a tape with a hook and loop fastener, there was neither a clear and unambiguous disclosure in this document of this mechanical fastener being disposed on a bonding layer, nor of the provision of an exposed bonding layer for connection to the disposable article, nor of a tape with this fastener being provided in a roll.
- V. Oral proceedings took place on 3 November 2005.

The appellants requested that the decision under appeal be set aside and that the European patent be revoked. The respondent (patentee) requested that the appeal be dismissed and that the patent be maintained in the form upheld by the Opposition Division, or alternatively on the basis of the claims according to one of the auxiliary requests 1 to 6 filed in advance of the oral proceedings with letter dated 2 October 2005.

VI. Of the prior art documents cited during the opposition proceedings only the following is relevant to the present decision, in addition to E14:

D10: US-A-3 863 412.

During the appeal proceedings a number of documents were filed by the appellants. Only the following are relevant to the present decision:

D19: AT-E-65690 B;

D21: photographs relating to test experiments of unwinding rolls, filed by appellant II with letter of 2 May 2003;

D27: EP-A-247 855.

VII. The submissions of the appellants in respect of the respondent's main request can be summarized as follows:

Concerning the interpretation of the claim, appellant I submitted that the expression of claim 1 "means for increasing the static friction" was to be regarded as deprived of any meaning. In the description of the patent in suit it was disclosed that an increase of the static friction was obtained by an increase of the

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roughness Ra, i.e. the mean roughness. There was however no direct correlation between the mean roughness and the static friction since the latter was dependent also on the frequency of the microscopic peaks and valleys forming the surface structure. Also the expression "stable roll" did not imply any precise limitations. In the description it was stated that a roll was stable when it could be unwound at high speed without telescoping. However, "high speed" meant speed higher than the usual speed and therefore this expression did not identify any specific speed.

Appellant II added that the patent in suit did not specify at all what was intended with "high speed", and therefore any speed could be regarded as such. According to the description of the patent in suit, the means for increasing the static friction could not only be coated but also be inherent to the back side surface of the support sheet. This was no disclosure of specific means, only of their location. There was no disclosure in the patent in suit of the reference for determining whether an increase of the static friction took place. The absence of a correlation between the static friction and the roughness was shown by the results of test experiments made by the appellants on the tape rolls shown in the photographs of D21.

Concerning sufficiency of disclosure, the appellants argued that the patent in suit did not teach how to provide the increase in static friction because it only disclosed to increase the static friction by means of an increase in roughness, yet the increase in roughness was not correlated with an increase in static friction. Many other factors such as the diameter of the roll and

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the winding pressure played a role in determining the static friction. Furthermore, claim 1 encompassed the possibility of a support sheet consisting of a nonwoven material. For nonwoven materials it was not possible to measure the static friction because any movement of the mechanical fastener, necessary for such measurement, would be prevented by the engagement thereof with the loops of the nonwoven material. Moreover, the patent in suit not only failed to indicate the reference with respect to which an increase of the static friction was to be obtained; it also failed to disclose a method for measuring the static friction. In the absence of a standard method for measuring the static friction, any known method could be used. However, the result of the measurement of the static friction depended on the method adopted. Also the difference between two measurements made with a same method on different materials could vary depending on the method used, even to such an extent that an increase of the static friction determined when taking the measurements with one method could correspond to a decrease of the static friction when using another method. Further, the patent in suit did not clearly disclose when a tape roll could be regarded as stable. The reference in the description to a roll that could be unwound continuously and at a high speed without telescoping did not remove the fundamental lack of clarity in the teaching of the patent in suit, because there was no indication of what was a high speed and what degrees of telescoping and under which conditions were allowable. Therefore, the patent in suit did not contain objective elements allowing a skilled person to establish, when trying to reproduce the invention, whether he was working within the forbidden area of the claims or not (see T 256/87,

point 17). For these reasons, the disclosure of the patent in suit was insufficient within the meaning of Article 83 EPC.

The subject-matter of claim 1 was not novel over the disclosure of E14, which concerned a prelaminated composite tape useful for fastener tapes for diapers. This document specifically disclosed tapes having a pressure-sensitive adhesive fastening layer, which were provided in roll form for storage and transport. E14 included the general teaching of using a mechanical fastener instead of the pressure-sensitive adhesive fastening layer, and thus disclosed the provision of a tape roll having a mechanical fastener. Such tape was clearly provided with an exposed bonding layer for attachment to an edge portion of a diaper, a mechanical fastener not being suitable for that purpose. A bonding layer was provided between the support sheet and the mechanical fastener as the direct result of the bond between these two components, even when the bond was made by welding because in such case a welded layer would be provided. Since the tape could be stored in roll form, it was necessarily in a stable roll. As regards the means for increasing the static friction of the back side surface to the mechanical fastener, since its effect was the provision of a stable roll, it was necessarily present, either as inherent to the support sheet material or as an additional layer, e.q. the release layer provided on the back side surface of the support sheet. In fact, the provision of a release layer was also contemplated by the patent in suit.

Even if it were novel, the claimed subject-matter would not involve an inventive step in the light of the

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disclosure in E14 of a tape having a mechanical fastener. Assuming that the tape of claim 1 was distinguished from the tape of E14 by the means for increasing the static friction provided on the back side surface of the support sheet, it had to be determined what technical effect was obtained by means of this distinguishing feature. However, there was no evidence in support of the patentee's allegation that the technical effect consisted in an increase of the stability of the roll. The appellants submitted evidence, namely the test experiments on the rolls shown in the photographs of D21, demonstrating that an increase of the static friction did not result in an increase of the stability of the roll. Therefore, the distinguishing feature was to be regarded as deprived of a technical effect. Accordingly, the objective technical problem solved consisted in providing an alternative tape roll. No inventive step could be seen in the provision of means for increasing the static friction to solve this problem. As regards the other features of claim 1 which the respondent submitted were not known from E14, reference was made to D19, showing a tape tab with a mechanical fastener attached to an absorbent article by means of an adhesive, to D27, disclosing the advantages of having a tape in a roll form, and to D10 showing a tape with a mechanical fastener in a roll.

VIII. The respondent refuted these arguments and submitted that claim 1 was to be interpreted in the light of the description, according to which "stable roll" meant a roll which could be unwound at a high speed continuously without telescoping of the roll during unwinding. Further according to the description, the means for increasing the static friction could either be coated on the back side surface or be inherent to the support sheet material itself. Considering that it was evident for a skilled person that "high speed" referred to the typical manufacturing speeds used in in-line manufacturing processes of disposable articles, claim 1 undoubtedly related to a tape in a roll in which, either because of the properties of the material of the support sheet or because of additional means provided on the back side surface thereof, the static friction between the support sheet and the mechanical fastener was such as to prevent telescoping of the roll when the latter was unwound at the typical manufacturing speeds of in-line manufacturing processes of disposable articles.

There were no difficulties for the skilled person to reproduce the invention: simple empirical investigations, consisting in verifying whether in use telescoping took place or not, were sufficient to verify whether the roll was stable or not. As regards the measurement of the static friction, the method used was irrelevant because the claim did not refer to values of static friction or to the difference of these values, but only required to determine whether the claimed means provided an increase in static friction. There were also no difficulties in measuring the static friction when the support sheet was made of a nonwoven material: by definition, the static friction related to the situation in which there was no relative movement between the mechanical fastener and the support sheet and therefore the fact that the loops of nonwoven material might prevent a relative movement had no significance.

In document E14 the disclosure of a tape in a roll form was limited to the case of the tape having an adhesive fastener. This specific disclosure could not be applied to the generic disclosure in E14 of a tape having a hook and loop fastener instead of an adhesive fastener. The disclosure of a hook and loop fastener was to be seen in connection with the general teaching of E14 to provide a stretchable multiple layer film, which not necessarily was in a roll form. In fact, there was no disclosure at all in the prior art of a tape with a mechanical fastener being in a roll form. Furthermore, for the tape having a hook and loop fastener, E14 did neither disclose that the mechanical fastener was disposed on a bonding layer, nor that an exposed bonding layer was provided for connection to the disposable article.

The means for increasing the static friction directly contributed to the desired result of providing a stable roll. The experiments of D21 showed that the tape rolls tested by appellant II could be unwound and thus worked well, but did not prove that there was no correlation between the stability of the roll and the static friction between the support sheet and the mechanical fastener. The teaching of the patent in suit, based essentially on the provision of means for increasing the static friction of the back side surface of the support sheet to the mechanical fastener, allowed to provide for the first time a tape with a mechanical fastener in a roll form which was sufficiently stable for use in in-line manufacturing processes of disposable articles. Since such means were not suggested by the prior art, the claimed subject-matter involved an inventive step.

Reasons for the Decision

- 1. The appeal is admissible.
- 2. Interpretation of claim 1 (main request)
- 2.1 There was much discussion amongst the parties as to the meaning of the expressions "stable roll" and "means for increasing the static friction" in the characterizing portion of claim 1, and this also has a bearing on the issues of sufficiency of disclosure, novelty and inventive step. It is therefore necessary to assess the technical meaning of these expressions before dealing with these substantive issues.
- 2.2 The respondent argued that, having regard to Article 69(1) EPC and the Protocol on the interpretation thereof, the claim was to be interpreted on the basis of the description. Accordingly, the expression "stable roll" should be read to have the meaning derived from the description according to which stable roll meant a roll which could be unwound at a high speed, i.e. at the typical manufacturing speeds of disposable articles manufacturing lines, continuously without telescoping.

However, a distinction should be drawn between, on the one hand, the fact that it might be necessary to take into account any explicit definition as given in the description for interpreting a claim's term and, on the other hand, the tentative to use Article 69 EPC as a basis for reading limitations derived from the description into claims in order to avoid objections based on lack of novelty or inventive step. The latter approach to claim interpretation by the respondent, whereby features mentioned only in the description are read into claim 1 as necessary limitations is incompatible with the EPC (see T 1208/97, point 4 of the reasons; T 932/99 point 4.3.3 of the reasons).

In the context of the present claim 1, the expression "stable roll" is understood by the skilled person as referring to a tape which, when in a roll, does not unwind by itself but remains in a roll form at least in the most favourable circumstances for that purpose, namely under static conditions, such as when the tape is stored. Contrary to the respondent's opinion, the wording of the claim does not necessarily imply that the roll itself must be such that it can be unwound at the usual manufacturing speeds of disposable articles without telescoping. Indeed, the claim neither specifies that the roll must be stable under such conditions, nor that the roll is to be unwound during the "production process" referred to in the preamble of claim 1. Furthermore, the claim does not even exclude that in the production process additional means for preventing telescoping of the roll are used (such as e.g. circular plates on both sides of the roll).

2.3 Claim 1 stipulates that "the back side surface of the support sheet is provided with means for increasing the static friction of the back side surface to the mechanical fastener". In the Board's judgment the skilled person giving to this expression its literal meaning understands that an **additional** means on the back side surface of the support sheet is required, which allows for an increase of the static friction of the back side surface (to the mechanical fastener) as compared to the static friction of other surfaces of the support sheet (to the mechanical fastener) that are not provided with such means (such as the front side surface which is opposite the back side surface).

The respondent and also the appellants submitted that the above-mentioned expression was to be interpreted in the light of the description as not limited to additional means on the back side surface but as encompassing also means inherent to the support sheet material.

If this expression is read so as to encompass also means inherent to the support sheet material, then it is given a broader meaning than that derived from its normal reading, as it would then include the case in which there is no additional means at all. However, it would be detrimental to legal certainty to read into claim 1 a feature which the normal reading thereof **explicitly** excludes.

In this respect, attention is drawn to the fact that the paragraph relied upon by the parties in column 4, lines 25 to 29, does not state that the increase of static friction can be inherent to the support sheet material. Rather it is stated that it can be inherent to the **surface** material. Therefore, this paragraph does not necessarily need to be interpreted as the parties have done and is not in contradiction with the interpretation given by the Board.

The Board remarks that the provision of a rough surface structure (see column 4, lines 29 to 31 of the patent in suit) on the back side surface of the support sheet may constitute such "inherent" means for increasing the static friction, but only if the other surface of the support sheet has not been treated in order to provide it with a rough surface structure. It thus is an inherent means to the **surface** material, and, at the same time, an additional means, namely in respect of the other surface of the support sheet, since it is not present there.

3. Sufficiency of disclosure (main request)

3.1 It is indisputed that the provision of a tape having the features defined in the preamble of claim 1 does not present any difficulties for the skilled person. In fact, this only requires the application of generally known technical measures.

> In order to determine whether a tape according to the preamble of claim 1 is stable when in a roll, having regard to the correct interpretation to be given of the expression "stable roll" (as explained above), the skilled person would simply need to immobilize the roll and check whether it unwinds from itself or not. As regards the means for increasing the static friction, the patent in suit discloses (see par. [0015]) that various means can be used, which may be coated on the back surface of the support sheet but preferably consist of a rough surface structure. In order to

determine whether a given coating on, or a specific rough surface structure of, the back side surface provides an increase of the static friction, the skilled person would only need to compare the static friction of the front side surface of the support sheet to the mechanical fastener with that of the back side surface to the mechanical fastener and check whether in the latter case a higher static friction is measured.

3.2 In this respect it is noted that the method used for measuring the static friction is irrelevant, since it is not the absolute value of the static friction which is of importance. In fact, it is only necessary to determine whether the static friction measured on one surface is greater than that measured on the other surface. It is clear for the skilled person that for this purpose the same measuring method should be used when making the two measurements.

> Appellant II submitted that an increase of the static friction determined when taking the measurements with one method could correspond to a decrease of the static friction when using another method. However, considering that such behaviour would be very surprising and that no theoretical explanation for it has been given or is apparent to the Board, and that the appellant II has not filed any experimental evidence in support thereof, appellant II's submission is to be regarded as an unsubstantiated allegation.

3.3 If the skilled person, after having selected a specific means with the intent of increasing the static friction, finds out that it does not provide the expected increase but, on the contrary, a decrease, then he would be able to find, with an acceptable amount of trial and error, another means producing the desired effect. In fact, adequate instructions are available on the basis of common general knowledge on the mechanism of static friction between interacting surfaces which would lead the skilled person necessarily and directly towards success through the evaluation of initial failures (see e.g. T 226/85, OJ 1988, 336). For instance, if the provision of a rough surface on the back side of the support sheet, with a roughness Ra between 3,5 and 10 •m in accordance with the disclosure of the patent in suit (column 4, lines 38, 39), does not provide the desired increase of the static friction, then the skilled person would obviously look for different surface structures that provide the desired effect.

Further, if the selected means for increasing the static friction would not lead to a stable roll, then the skilled person, on the basis of the disclosure of the patent in suit (see column 4, lines 21 to 25) according to which the static friction is related to the stability of the roll, would look for other means providing greater increase of the static friction until a stable roll is obtained.

3.4 The appellants submitted that if the means for increasing the static friction were a nonwoven material, then it was not possible to measure the static friction due to the engagement of the mechanical fastener with the loops of the nonwoven material. Apart from the fact that the patent in suit does not specifically disclose that the means for increase the static friction consists of a nonwoven material, but only that the

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material of the support sheet can be a nonwoven (see column 4, lines 5 to 7), whether an engagement of the mechanical fastener with the loops of the nonwoven material takes place depends not only on the nature of the material but also on the nature of the mechanical fastener used, e.g. in case of a fastener having hooks, from the form and dimensions of the hooks. Thus, the skilled person would select the support sheet, the means for increasing the static friction and the mechanical fastener in such a manner that when the latter engages the back side of the support sheet a form fit is avoided and the static friction is measurable.

3.5 In view of the above it is concluded that the skilled person would have no difficulties in reproducing the invention as claimed. Accordingly, it is found that the patent discloses the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 83 EPC).

4. Novelty (main request)

4.1 Using the wording of claim 1, document E14 discloses a prelaminated composite tape (see Fig. 2 and 6) from which a composite adhesive closure tape tab for disposable articles can be cut, which comprises a support sheet (4) and a fastener (6), wherein the support sheet (4) has a fastening surface (6) with a bonding layer (6) and a back side surface, whereby a first axial extending section of the support sheet has a patch comprising a fastener (6) and a second axial extending section of the support sheet has an exposed bonding layer which is attached to an edge portion of a disposable article (10) in a production process. Since

the tape can be stored and transported in roll form, it is in a stable roll (page 8, second paragraph). In this composite tape, as in all the embodiments shown in the figures of E14, the fastener 6 is a pressure-sensitive layer (page 7, 3rd paragraph) and no additional bonding layer is provided.

E14 further discloses (paragraph bridging pages 19 and 20) that a hook and loop fastener can be used instead of the pressure-sensitive adhesive fastening layer.

The appellant submitted that this disclosure was a general teaching which applied to all the embodiments disclosed, in particular to the embodiment of an adhesive tape in roll form. The Board cannot accept this view. The cited disclosure on page 19 of E14 refers to the multiple layer film of "this invention". The invention of E14, in its most general form, is defined in claim 1, which does not mention the feature of the tape being in a roll form. Furthermore, the disclosure of a tape in roll form on pages 8 and 9 is specifically related to a tape having only pressuresensitive adhesive fasteners. Considering that such tapes cannot be regarded as equivalent to tapes with mechanical fastener for disposable articles at least from a manufacturing point of view, and indeed as stated in the patent in suit (see par. [0003]) mechanical fastening systems normally require in-line lamination of all components, there is no reason for a skilled person to directly associate the feature of the tape being in roll form, specifically disclosed for a pressure-sensitive tape, with the disclosure of a tape having a mechanical fastener.

Moreover, there is no disclosure in E14 of how the mechanical fastener is bonded to the support sheet, and thus there is no disclosure of the mechanical fastener being disposed on a bonding layer. If, for instance, the mechanical fastener is attached to the support sheet by means of welded spots, then a bonding layer is not formed. Further, E14 does not disclose, in connection with the tape having a mechanical fastener, an exposed bonding layer for connection to a disposable article. Considering that in the examples of E14 (see Fig. 6) pressure-sensitive adhesive fastening layers are used for fastening the tape tab not only to an edge portion of the diaper but also to another part thereof (see page 10, 2nd paragraph), the generic disclosure on page 20 of E14 to use a hook and loop fastener instead of a pressure-sensitive adhesive fastening layer leaves open the possibility of providing two mechanical fasteners, one for the attachment of the tab to an edge portion of the diaper and the other for the attachment to another part thereof.

Finally, E14 does not disclose any means for increasing the static friction of the back side surface to the mechanical fastener. Since the nature of the hook and loop fastener is not specified at all, no information can be derived from E14 in respect of the static friction existing between the mechanical fastener and the back side surface of the support sheet, and in particular whether the static friction on the back side surface provided with additional means such as a release layer (5, which may consist of a silicone coating, see page 7, third paragraph) or an embossed surface (page 21, lines 1,2; note however that there is no disclosure of the embossing being provided only on the back side surface of the film 4) would be greater than the static friction on the other surface of the support sheet which is not provided with such means.

4.2 None of the remaining available pieces of prior art discloses a tape suitable for the production of tape tabs for disposable articles having a mechanical fastener and being in a roll.

Appellant I referred to document D10 as disclosing a fastener strip roll (100; see Fig. 7) comprising a backing tape (102) provided with mechanical fasteners (104; see column 4, lines 40 to 51). However, this known tape is not suitable for the production of tape tabs for disposable articles, since it is used for holding panels on walls of buildings (column 1, lines 4 to 14).

- 4.3 Therefore, the subject-matter of claim 1 is novel (Article 52(1) and 54(2) EPC) over the available prior art.
- 5. Inventive step (main request)
- 5.1 The problem underlying the patent in suit consists in providing a closure tab roll containing mechanical fastener components which is stable and thus suitable for in-line manufacturing process of disposable articles.
- 5.2 The prelaminated composite pressure-sensitive tape of document E14 represents the closest prior art, since it is in roll form and is suitable for in-line manufacturing processes of disposable articles. The

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subject-matter of claim 1 differs therefrom in that the fastener is a mechanical fastener and the back side surface of the support sheet is provided with means for increasing the static friction of the back side surface to the mechanical fastener.

In contrast to a pressure-sensitive adhesive, a mechanical fastener does not normally have adhesive properties in respect of the back side surface of the support sheet. Furthermore, a mechanical fastener is usually relatively thick as compared to an adhesive layer. According to claim 1, the mechanical fastener is provided on a portion only (the patch) of the support sheet. Thus, it is to be expected that in a tape having a mechanical fastener, when rolled up, most of the contact between the back side surface of the support sheet and the front portion of the tape will occur in correspondence with the mechanical fastener. The increase of the static friction, provided by the corresponding means referred to in claim 1, has the effect of improving this contact for better counteracting relative displacements between the mechanical fastener and the back side surface of the support sheet, i.e. between different turns of the roll. Accordingly, the cohesion between the different turns of the rolls is improved, and a stable roll is obtained.

5.3 The appellants submitted that there was no correlation between the increase of static friction and the stability of the roll, as demonstrated by the test experiments of D21. According to these experiments, the tested rolls were each provided with a support sheet having different values of the surface roughness. For

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none of them telescoping occurred during unwinding, i.e. all the rolls were stable. However, it cannot be derived from these experiments that the static friction is irrelevant for the stability of the roll. In fact, all that can be derived from these experiments is that all the rolls tested were stable. This might well be due to the fact that there was sufficient static friction between the different turns of the rolls. Therefore, the appellant's argument must fail.

5.4 There is no indication in E14 or in the remaining available prior art to provide means for increasing the static friction of the back side surface of the support sheet to the mechanical fastener in order to obtain a stable roll. Therefore, the subject-matter of Claim 1 is not obvious to a skilled person.

> In view of the above the questions of whether it is obvious for a skilled person to provide, in the tape according to the embodiments shown in the figures of E14, a mechanical fastener in combination with an exposed bonding layer, and of whether the skilled person would provide such tape in roll form, can be left aside.

- 5.5 For these reasons, the subject-matter of claim 1 involves an inventive step (Article 56 EPC).
- Under these circumstances, the auxiliary requests of the respondent do not have to be considered.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

M. Patin

P. Alting van Geusau