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**Datasheet for the decision
of 14 June 2016**

Case Number: T 2584/11 - 3.2.06

Application Number: 00308504.0

Publication Number: 1090617

IPC: A61F13/515, A61F13/15

Language of the proceedings: EN

Title of invention:
Laminated absorbent article

Patent Proprietor:
Unicharm Corporation

Opponents:
Paul Hartmann AG
The Procter & Gamble Company

Relevant legal provisions:
EPC Art. 83
RPBA Art. 13(1)

Keyword:
Admittance - New Main Request - change of case - (no)
Auxiliary Requests 3 to 6 - not allowable
Sufficiency of disclosure - (no)
Auxiliary Request 7 - not admitted

Decisions cited:

T 0063/06



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Case Number: T 2584/11 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 14 June 2016

Appellant:
(Patent Proprietor)

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 21 October 2011
revoking European patent No. 1090617 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman	M. Harrison
Members:	G. de Crignis
	E. Kossonakou

Summary of Facts and Submissions

- I. European patent No. 1 090 617 was revoked by the opposition division by way of its decision posted on 21 October 2011.
- II. The opposition division held that the ground of opposition under Article 100(b) EPC was prejudicial to maintenance of the patent, since the skilled person could not carry out the invention without undue burden.
- III. The appellant (patent proprietor) filed an appeal against this decision and paid the appeal fee within the foreseen time limit. A statement setting out the grounds of appeal was received at the European Patent Office on 16 February 2012. The appellant requested that the decision of the opposition division be set aside and the patent be maintained as granted (main request), in the alternative, that the patent be maintained based on one of the first to sixth auxiliary requests filed with the grounds.
- IV. In their replies, the respondents (opponents OI and OII) each requested dismissal of the appeal.
- V. With letter of 3 December 2015, the Board summoned the parties to oral proceedings.
- VI. With communication dated 7 March 2016, the Board gave its provisional opinion, stating that neither the main request nor any of the auxiliary requests appeared to be allowable with regard to the objections raised under Article 100(b) EPC. Additionally the Board stated that the objections raised by the respondents under Article 100(c)/Article 123(2) EPC might also require discussion.

- VII. With letter of 13 May 2016, the appellant filed a seventh auxiliary request.
- VIII. Oral proceedings were held before the Board on 14 June 2016, during which the appellant requested that the contested decision be set aside and that the patent be maintained on the basis of the claims of the new main request which was filed during the oral proceedings or of one of the 3rd to 6th auxiliary requests filed with the statement setting out the grounds of appeal or on the basis of the 7th auxiliary request filed with the letter of 13 May 2016.

The respondents requested that the appeal be dismissed.

Claim 1 of the new main request reads as follows:

"A method of making a laminated panel comprising at least two sheet members overlapped with and joined to each other by means of an adhesive applied on at least one of the inner surfaces of the sheet members, wherein the adhesive forms a plurality of separated adhesive lines extending in one direction while being bent such that an adhesive line extends in a wave shape while rising and falling; the number of times in which one of the adhesive lines repeats bending is in the range of 50 to 200 per 1 m of dimension of the sheet member; and the number of times in which the one adhesive line intersects with itself is less than or equal to 200 per 1 m of dimension of the sheet member, the adhesive line intersecting with itself at dispersed intersection points (30)."

Claim 1 of auxiliary request 3 reads:

"A laminated panel comprising at least two sheet members overlapped with and joined to each other by means of an adhesive applied on at least one of the inner surfaces of the sheet members, wherein the adhesive forms a plurality of separated adhesive lines extending in one direction while being bent such that an adhesive line extends in a wave shape while rising and falling; adjacent adhesive lines extend so as not to intersect with each other; the number of times in which one of the adhesive lines repeats bending is in the range of 50 to 200 per 1 m of dimension of the sheet member; and the number of times in which the one adhesive line intersects with itself is less than or equal to 200 per 1 m of dimension of the sheet member, the adhesive line intersecting with itself at dispersed intersection points (30)."

Claim 1 of each of auxiliary requests 4 to 7 also includes the following feature of claim 1 of auxiliary request 3:

"...; the number of times in which one of the adhesive lines repeats bending is in the range of 50 to 200 per 1 m of dimension of the sheet member; and the number of times in which the one adhesive line intersects with itself is less than or equal to 200 per 1 m of dimension of the sheet member, the adhesive line intersecting with itself at dispersed intersection points (30)."

This feature being decisive for the outcome of each of auxiliary requests 3 to 7 (see below), it is not necessary to indicate the further amendments made in the corresponding claim 1 of each request.

IX. The appellant essentially argued:

Although only filed during the oral proceedings, the new main request should be admitted. The objection that had to be addressed had only been understood during discussion of the previous requests. The request could therefore not reasonably have been filed earlier, even though there were objections already made in writing.

Concerning auxiliary requests 3 to 6, no further arguments would be made beyond those already made in support of the previous requests which had subsequently been withdrawn.

The wording of the claim relating to the adhesive line "intersecting with itself" in the sense of "crossing over itself" had to be distinguished from the case where the adhesive line was "contacting itself". Only the situation of the adhesive line "crossing-over" represented the intersecting adhesive line having dispersed intersection points. The mere contact - in the sense of touching - was not sufficient for an adhesive line being considered as "intersecting with itself". This distinction clarified that the expression of the "adhesive line intersecting with itself" should be understood as meaning that an intersection had to result in a kind of loop or hole in the wave pattern.

A skilled person could manually apply an adhesive in separated lines, each adhesive line intersecting with itself at a countable number of dispersed intersection points and bendings, such as shown in Figure 4. This was also possible for 50 repetitive bendings linked to 200 intersections. A well-defined pattern was not obtained whereby a certain degree of randomness was implied. Based upon such manual procedure, a computer program could then be developed which took into account

inter alia the manually preset pattern, the direction and amount of incoming air and the velocity of the sheet. The skilled person knew from his common general knowledge how to set up such procedure and programs. The adhesive lines were not altered by joining a second sheet member to the first sheet member. There was no necessity to join the two sheet members by applying external pressure; one could merely be allowed to be laid on the other with only the force of gravity being applied. Therefore, the pattern was not influenced by any such pressure. Accordingly, the invention was disclosed sufficiently.

Concerning auxiliary request 7, the same arguments applied.

- X. The arguments of the respondents can be summarised as follows:

The new main request should not be admitted. It represented a significant change of case although all objections had already been present in the written submissions. Also *prima facie* claim 1 did not meet the requirement of Article 84 EPC in that, although the claim was directed to a method, no method step was included.

Claim 1 of each of auxiliary requests 3 to 6 included the feature concerning the number of repetitive bendings and the number of intersections of the adhesive line which could neither be reproducibly carried out nor be determined. The appellant understood a certain degree of randomness had to be present whereas, simultaneously, a specific pattern of the adhesive line then had to apply as well. Accordingly, there was a discrepancy or contradiction which was

nowhere explained. Further, no method was described for how to establish the presence of the claimed numbers of bendings and intersection points, let alone "dispersed intersection points".

The burden of proof had to be borne by the appellant since there was no possibility for the opponents to establish such a method. This position was consistent with the case law of the Boards of Appeal, such as decision T 63/06, which already held that the patentee had the burden of proof for the assertion that common general knowledge would indeed enable the skilled person to carry out the invention. It should also be taken into account that no example was disclosed in the patent in suit which could be followed in order to understand how to obtain a laminate having wave shaped adhesive lines bending in the claimed range and intersecting with themselves in the claimed range. Concerning the claimed ranges, the combination of 200 intersections linked with a number of 50 bendings per 1 m of dimension did not correspond to an adhesive line extending in what could also be termed a "wave" shape. The sketch shown in Figure 4 relied upon by the appellant did not explain this lack of disclosure either. Moreover, reliance could not be placed on the cited patent documents to fill in the missing disclosure, since they also did not disclose any such method or manufacturing process.

Auxiliary request 7 should not be admitted. It was filed in order to overcome an objection under Article 123(2) EPC and was not suitable to overcome the objection concerning sufficiency of disclosure.

Reasons for the Decision

1. *New Main Request - Admittance*

1.1 The request was filed during the oral proceedings. According to Article 13(1) of the Rules of Procedure of the Boards of Appeal (RPBA), it lies within the discretion of the Board to admit any amendment to a party's case after it has filed its grounds of appeal or reply. In order to be admitted, such a request should be clearly allowable at least in the sense that it overcomes the objections raised and does not give rise to new objections, in order that economy of procedure is respected. However, this is not met for claim 1 of this request.

1.2 The amendment changes the category of the claim from an article (a laminated panel) to a method of making a laminated panel. The amendment was made as a reaction to the objections concerning the recognition of the adhesive lines with regard to their number of bendings and intersections in the finished laminate, in particular with regard to the "randomness" and the interpretation of "dispersed". The basis for these objections was already set out in the appealed decision and was raised in the written statements of the respondents with respect to the main request on file at that time. The amendment changes the scope of the claim completely and, in comparison to the case made on appeal, results in an entirely different set of considerations.

1.3 Moreover, the claim is at least *prima facie* not clear since, although a "method" is claimed, no method step has been defined. The appellant argued that a skilled person would understand implicitly that method steps

were included, but did not indicate which specific method steps were to be understood. Hence, the Board concluded that the amendment at least gave rise to a *prima facie* objection of lack of clarity (Article 84 EPC).

1.4 Accordingly, the Board exercised its discretion under Article 13(1) RPBA not to admit the new main request into the proceedings.

2. *Auxiliary requests 3 to 6*

2.1 Claim 1 of each of these requests includes the feature of two sheet members overlapping with and joined to each other by means of an adhesive and forming a laminated panel. Further, according to claim 1 of each request, the adhesive lines extend in a wave shape pattern. The pattern is defined as including within one adhesive line a particular number of bendings (50 to 200 per 1 m of dimension of the sheet member) and a particular number of intersections (less than or equal to 200 per 1 m of dimension of the sheet member).

2.2 At the same time as these exact numerical requirements must be fulfilled, a certain randomness of the wave-shaped pattern also has to be fulfilled in order to meet the feature of "dispersed intersection points", which the appellant also agrees must be interpreted as implying randomness of intersection. The irregularly wave-shaped pattern shown in the Figures includes a random distribution of bendings and of intersection points according to the concept of the invention as set out in the appellant's statements.

2.3 The following considerations are further made on the premise that all of the intersection points are

considered to be "dispersed intersection points". Albeit no explicit description is present disclosing only randomly dispersed intersection points, this interpretation is the only basis for the assessment, since, in the alternative, it cannot be understood how the skilled person should distinguish (the claimed) "dispersed" intersection points from "non-dispersed" intersection points.

- 2.4 A further issue is whether the term "the adhesive line intersecting with itself" can be understood to mean only "cross-over" and not merely "in contact" as submitted by the appellant. The appellant was of the view that the "cross-over" - situation could also be identified in a laminate as it could be identified by the presence of a visible hole or loop in the adhesive line.
- 2.4.1 Paragraph [0034] of the patent in suit discloses that *"the situation "the adhesive line L intersects" also involves the case where the adhesive line L contacts with itself, in addition to the case where the adhesive line L intersects with itself"*. This paragraph concerns the embodiment shown in Figure 4 illustrating adhesive lines applied on one sheet member and is not a general disclosure concerning some other property which might be seen as remote from Figure 4.
- 2.4.2 However, when considering Figure 4, it is impossible to distinguish between the occurrences of an intersection in the sense of "cross-over" or of "contact". As shown in Figure 4, even if a hole/loop is present, it cannot be determined whether this hole represents a loop following an intersection in the sense of a cross-over or whether the neighbouring parts of a bent adhesive line merely come into contact. In this regard, it

should be remembered that claim 1 is directed to a "laminated panel" and not its method of manufacture.

2.4.3 Additionally, the appellant argued that only intersections in the meaning of "crossing-over" should be considered which had significant angles of intersection. No such requirement is however disclosed anywhere in the patent. Therefore, also small angles of intersection must be considered as crossing-over intersections.

2.4.4 For "crossing-over" situations where small angles are present, the resultant appearance does not at all necessarily include a loop or a hole. Thus an intersection of the line cannot be distinguished from mere contact of a bent line with itself. This impreciseness arises from the nature of the adhesive unavoidably dispersing to a certain extent when being applied. The dispersion depends on the viscosity of the adhesive which changes with temperature, and on further application and production variables such as *inter alia* the amount of adhesive, the velocity and material of the sheet to which it is applied, and the kind of pattern which is applied (dots, stripes). It may also arise from the desired randomness of the pattern. Thus, small angles of intersection do not necessarily result in a visible/sustainable/recognizable loop or hole in a wavy adhesive line intersecting with itself. Accordingly, neither the presence nor the absence of a loop or hole can be identified with certainty as a "cross-over"-situation or intersection.

2.4.5 Considering this issue further in the claimed panel, the impossibility of distinguishing between cross-over (intersection) and touching (contact) of the adhesive line is amplified when considering that the claimed

laminated panel comprises at least two overlapping sheet members. When positioning the second sheet member upon the first one, this has to be done at a moment where the adhesive is still effective for bonding and hence, a certain amount of dispersion necessarily occurs. Accordingly, intersecting adhesive lines having a small angle of intersection cannot be distinguished from touching adhesive lines. Small holes or loops as well as slightly distant lines - even if possibly recognizable when applied on one sheet - do not remain recognizable in the finished laminate (i.e. the product being claimed) - even if this were still possible on the surface of the sheet where the adhesive had been applied originally. This impossibility of distinction would apply irrespectively of the amount of applied pressure, since, with regard to the claimed laminated panel, at least a small amount of pressure cannot be avoided, otherwise a "laminate" would not result.

2.4.6 In regard to the appellant's suggestion that no pressure, apart from merely the weight of the sheet itself under the force of gravity, was necessary in a lamination process, no evidence was provided that this was the case and no such lamination process (i.e. one devoid of pressure) is known to the Board. It is generally known to a skilled person that a lamination process includes a final step using pressure rolls for establishing the laminate. This final step makes the difference between a two-(or multi-)layered sheet and a laminate, a laminate being a multi-layered sheet which generally acts as a single sheet, which was not in dispute. This applies irrespectively of whether the manufacturing process concerns manual or automatic production. As a consequence of this pressure on the adhesive pattern, required for producing the resultant laminate, adhesive line portions which result from

previously contacting portions or from previously intersecting lines cannot be distinguished.

2.4.7 Thus, the skilled person is not in a position to distinguish, in the resulting laminate (i.e. the product claimed), intersections from contacts or cross-overs. As a consequence, there is no method enabling the skilled person to ascertain whether or not a certain number of intersection points is present. No method is given in the patent for establishing the number of intersections in the laminate, even though this is essential for a skilled person in order to achieve the invention.

2.5 Additional considerations as to whether a skilled person can perform the claimed invention also relate to the required presence (in claim 1) of a "wave shape" of the adhesive line. Figure 4 of the patent in suit is disclosed as showing a wave shape. It is not disclosed, which dimensions and which combination of repetitive bendings and intersections is shown. In view of the above discussed impossibility of counting the actual number of intersection points correctly, the Figure is not self-explanatory. However, Figure 4 shows at least several consecutive bendings which are neither subjected to cross-over situations nor to contacting situations (albeit prior to lamination) and it shows no regular bendings or intersections and hence, an irregular wavy shape in the sense of the patent in suit can indeed be understood.

2.5.1 Claim 1 however covers, with respect to an adhesive line extending in a wave shape, a large range of repetitive bendings in combination with a large range of intersections. For some of these combinations across the scope of the claim, such as 50 repetitive bendings

combined with 200 intersections (4 intersections for one bending), the Board cannot find that a wave-shaped adhesive line is present, since a wave shape is not visible, but instead - and necessarily - merely a series of irregularly-shaped loops. This was also apparent from the pattern drawn by the representative of the appellant on the flip chart during the oral proceedings, at the request of the Board to explain how such a pattern could appear. The shown ($50/200 = 1/4$) pattern resulted in a kind of irregular, in some way "spiral-like", series of crossed-over loops but not in any recognisable wave shape.

2.5.2 Hence, there is no disclosure or evidence that it would be possible to create a wave-shaped adhesive pattern over the whole scope of combinations of the claimed ranges for repetitive bending and intersections.

2.6 Further, no evidence has been provided by the appellant with regard to its view that the skilled person was capable of controlling the process - either manually or automatically over the whole scope of parameters defined in the claim, which - as explained above - requires, in certain parts of the parameter ranges, a large number of intersections per bending (e.g. 4 per bending whilst potentially implying large number of dispersed intersections) while at the same time working with a viscous substance (adhesive).

2.6.1 The appellant argued that this was possible based on the common general knowledge of a skilled person. However, for a manual method including some sort of irregularity or randomness, no means of control in a way allowing the numerical ranges to be attained is disclosed, nor has it been demonstrated that, while maintaining a wave shape, this can be done based e.g.

on a skilled person's common general knowledge. Consequently, the subsequent argument of the appellant cannot then be followed that a manual method could simply be transferred/up-scaled into an automatic method. No corresponding guidance whatsoever is available in the patent for such a concept which as such requires successive reversals of the process whilst operating with adhesive. Moreover, as mentioned above, it is a laminated panel which is claimed and not the manufacturing process. The documents cited by the appellant in the proceedings to support its argument are neither related to such a transfer or up-scaling nor to the control of numerical ranges requiring intersections while also providing a specific randomness. Hence, these documents are simply irrelevant as they disclose only relatively constant repetitive patterns. No other evidence concerning common general knowledge to this effect has been submitted.

2.6.2 Concerning the burden of proof, the appellant considered the respondents' submissions to be mere allegations not based on verifiable facts. However, in view of the pattern being on the one hand defined by exact numerical parameters and on the other hand concerning a certain degree of randomness, and in the absence of any information how these features should be consistent, the respondents are - understandably - not in a position to provide any further explanations or evidence. Thus, the burden of proof for the assertion that common general knowledge would indeed enable the skilled person to carry out the invention lies in this case with the appellant/proprietor (see also T 63/06, headnote, last sentence).

2.6.3 The appellant's reference to prior art documents concerning common general knowledge for applying hot-melt adhesive in adhesive patterns is not related to a combination of randomness and specific ranges and thus would not enable the skilled person to put the alleged invention into practice. On the contrary, the Board finds that, if anything, this verifies the lack of such common general knowledge.

2.7 Hence, since the provision of the exact number of bendings and intersection points are features of claim 1, there is no disclosure in the patent in suit of how the number of bendings and intersections is controlled (or limited) during manufacturing while at the same time maintaining a wave shape of the adhesive lines. Nor is it disclosed how a skilled person can determine the number of intersections in any laminated panel.

2.8 As the patent in suit does not contain the required information enabling a skilled person to obtain the full range of the specified combinations concerning repetitive bending and intersections, the Board concludes that the subject-matter of claim 1 is not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, as required by Article 83 EPC.

2.9 This objection applies to the subject-matter of claim 1 of auxiliary requests 3 to 6, with the consequence that these requests are not allowable.

3. *Auxiliary request 7*

3.1 This request was filed after the summons to oral proceedings. As set out above (see point 1.1), according to Article 13(1) RPBA, it lies within the

discretion of the Board to admit it at such a stage of proceedings, and for being admitted such a request should be clearly allowable at least in the sense that it overcomes the objections raised and does not give rise to new objections.

3.2 Claim 1 of this request was amended with the intention of overcoming other objections arising with regard to Article 123(2) EPC. Accordingly, the amendments do not alter the conclusion concerning sufficiency of disclosure (Article 83 EPC) reached in regard to the previous requests, nor did the appellant argue that such objections were overcome by the amendments made. Hence, this objection continues to apply.

3.3 Accordingly, the Board exercised its discretion under Article 13(1) RPBA not to admit auxiliary request 7 into the proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



M. H. A. Patin

M. Harrison

Decision electronically authenticated