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Datasheet for the decision of 5 December 2017

Case Number: T 0942/13 - 3.2.05

Application Number: 05742712.2

Publication Number: 1786713

IPC: B65H39/16

Language of the proceedings: EN

Title of invention:
Sheet product comprising at least two plies joined by gluing with non-uniform distribution of the glue

Patent Proprietor:
FABIO PERINI S.p.A.

Opponent:
SCA TISSUE FRANCE

Relevant legal provisions:
EPC 1973 Art. 54, 56
RPBA Art. 13(1), 13(3)

Keyword:
Novelty (main request) – no
Admittance of late filed document cited in the patent - yes
Inventive step (first auxiliary request) - yes

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Case Number: T 0942/13 - 3.2.05

D E C I S I O N
of Technical Board of Appeal 3.2.05
of 5 December 2017

Appellant: (Opponent)	SCA TISSUE FRANCE 151-161, boulevard Victor Hugo 93400 Saint-Ouen (FR)
Representative:	Franck-Olivier Martin Gevers & Orès 41 avenue de Friedland 75008 Paris (FR)
Respondent: (Patent Proprietor)	FABIO PERINI S.p.A. Via per Mugnano 55100 Lucca (IT)
Representative:	Michele Mannucci Ufficio Tecnico Ing. A. Mannucci S.r.l. Via della Scala, 4 50123 Firenze (IT)
Decision under appeal:	**Decision of the opposition division of the European Patent Office posted on 15 February 2013 rejecting the opposition filed against European patent No. 1786713 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	M. Poock
Members:	H. Schram
	G. Weiss

Summary of Facts and Submissions

I. On 11 April 2013 the appellant (opponent) lodged an appeal against the decision of the opposition division, posted on 15 February 2013, by which its opposition against European patent No. 1 786 713 was rejected. The statement of grounds was filed on 25 June 2013.

The opposition had been filed against the patent as a whole on the basis of Article 100(a) EPC (lack of novelty, Article 54 EPC and lack of inventive step, Article 56 EPC).

II. Oral proceedings were held before the board of appeal on 5 December 2017.

III. The appellant requested that the decision under appeal be set aside and that the patent be revoked in its entirety.

The respondent (patent proprietor) requested as main request that the appeal be dismissed, or alternatively that the decision under appeal be set aside and that the patent be maintained upon the basis of the first auxiliary request filed under cover of a letter dated 18 December 2013, or one of the second and third auxiliary requests filed under cover of a letter of 3 November 2017.

IV. Claims 1 and 2 of the main request (claims 1 and 2 as granted) read as follows:

"1. A tissue paper sheet product (N) wound in a roll, comprising at least two plies (V1, V2) joined to each other by gluing, at least one of which is embossed,

wherein longitudinal edge areas (1) of said sheet product are provided with a greater quantity of glue with respect to at least an intermediate area (3), which is devoid of glue or essentially devoid of glue or provided with a smaller quantity of glue compared to the glue applied along the edge areas,

said glue being applied to the front surface of embossed protuberances (7) of said at least one embossed ply; and

wherein the glue (C) applied to the protuberances allows the plies (V1, V2) to adhere to each other."

"2. A tissue paper sheet product (N) wound in a roll, comprising a first external ply (V1), a second external ply (V2) and an intermediate ply (V3), the external plies (V1, V2) being embossed, the plies being joined to each other by gluing,

wherein longitudinal edge areas (1) of said sheet product are provided with a greater quantity of glue with respect to at least an intermediate area (3), said glue being applied to the front surfaces of embossed protuberances (7) of said first external embossed ply; and

wherein the glue (C) applied to the protuberances glue said first external embossed ply to said intermediate ply (V3) through which the glue seeps allowing reciprocal bonding of said three plies (V1, V2, V3)."

Claims 1 and 2 of the first auxiliary request differ from claims 1 and 2 of the main request in that the expression "being applied to" is replaced by the expression "being only applied to".

V. The documents referred to in this communication include the following:

D1 EP 0 782 503 B1;

D5 DE 199 59 832 B1;

D12 US 6,681,826.

VI. The arguments of the appellant, in writing and during the oral proceedings, can be summarized as follows:

Novelty of claim 1 of the main request

In the decision under appeal, the opposition division had interpreted the feature (f), viz "said glue being applied to the front surface of embossed protuberances (7) of said at least one embossed ply", in particular in the light of Figure 17 and the corresponding description, as meaning that glue was applied only to the front surface of embossed protuberances, see Reasons, point 2.2.1.1, page 6, middle paragraph. The opposition division held that, since document D1 did not include the limitation "only", claim 1 was novel over that document.

Figure 17 showed a particular method of applying glue by means of a glue dispensing roller. However, claim 1 was about a product, not a process. The process for applying glue on the web as disclosed in the patent could not be used to restrict the claim. Moreover, Figure 17 also showed a rubber coated laminating roller 119, so that it could not be excluded that through the action of said roller glue ended up on the side surfaces of the protrusions or even on the web between said protrusions. It followed that claim 1 could not be interpreted as including the term "only" and that said claim was not novel.

Admittance of document D12

Document D12 should be admitted into the appeal proceedings, since this document was cited in the paragraph [0028] of the description and on page 6, line 30 of the published version of the application as filed, so that it was not a new fact *per se*, as indicated in the Guidelines (D-V-2.2, second paragraph). This document was obviously the closest state of the art from which the claims had been drafted (all the features cited in paragraphs [0003] to [0005] were disclosed in this document) and was *prima facie* relevant to expose the lack of inventive step of the claim 1 of the first auxiliary request. Moreover, this document belonged to the respondent, was short, and should not raise technical nor juridical questions.

Inventive step of claims 1 and 2 of the first auxiliary request

Document D12 was the closest prior art, because it was directed to a tissue paper in which the quantity of glue was reduced to make it more comfortable to use. From this document it was known to produce multiply tissue papers by applying glue to the front surfaces of the protuberances of at least one ply. Moreover, this document also disclosed to reduce the amount of glue applied, typically by reducing the number of protuberances on which the glue was applied, see column 3, lines 33 to 36. The reasons for reducing the quantity of glue were also known from document D12, see column 2, lines 48 to 50.

The distinguishing feature between claim 1 and document D12 concerned the distribution of the glue on the

surface of the plies: longitudinal edge areas were provided with a greater quantity of glue than the quantity that was applied on an intermediate area. This specific distribution had the function of "reducing the quantity of glue in those areas where it can have a negative effect on the characteristics of softness and/or absorption capacities of the product, concentrating the presence of the glue mainly along the edge areas" (see column 2, lines 29 to 33, of the patent in suit), while guaranteeing optimum joining of the plies, see column 2, lines 40 to 42. The objective technical problem was therefore to obtain a multiply tissue paper softer to use and with optimal joining of the plies.

Document D5 belonged to the same technical field of tissue paper wound in a roll. It also addressed the problem of diminishing the quantity of glue applied (column 1, lines 25 to 27). This document provided the solution to this technical problem (see column 1, lines 61 to 65 and column 2, lines 4 to 6) by bonding the plies, for instance by gluing, on longitudinal areas 5, 6 located on the edge of the paper, see column 1, lines 57 to 61. The skilled person would see the advantages of this teaching and had no practical difficulties in applying the distribution of the bonding areas as taught by document D5 on the tissue of document D12. Accordingly, the subject-matter of claim 1 did not involve an inventive step in view of documents D12 and D5.

VII. The arguments of the respondent, in writing and during the oral proceedings, can be summarized as follows:

Novelty of claim 1 of the main request

The notion “front surface(s) of embossed protuberances” in claims 1 and 2 of the main request was clear to the person skilled in the art. When a ply was embossed by an embossment roller and a pressure roller, it was subjected to permanent mechanical deformation such that protuberances were formed on the ply, cf paragraph [0003] of the patent. Such protuberances were geometrically shaped and had a top (or front) surface (which corresponded to the original surface of the ply before embossing) and side surfaces. The term “front surface” was used to distinguish said top surface from said side surfaces. Claim 1 clearly stated that glue "being applied to the front surface of embossed protuberances (7)” (cf feature (f)), implying that glue was to be applied to the front surface, and nowhere else, since the purpose of the glue was to adhere the front surfaces of plies V1 and V2 to each other. With regard to feature (f), the opposition division made a preliminary remark, stating that “in order to establish novelty and inventive step, the principle that the description and the drawings are used to interpret the claims has to be applied”, see page 6, second paragraph of the contested decision. Correctly applying this principle of law, the opposition division arrived at the conclusion that feature (f) was to be construed in the sense that glue was applied to the front surface of the embossed protuberances only and not in other areas. This was immediately and unambiguously derivable from the application as filed and was the correct meaning to be given to feature (f). The appellant has argued that the function of glue, namely to adhere the plies to each other, did not depend on the mode of application of the glue. This argument was not to the point, since the features of the claims had to be construed in the context of the problem to be solved and the solution given to that problem in the patent. Since the

invention was aimed at solving the problem of reducing the negative effect of glue on the features of the final product and in reducing the glue consumption (see paragraphs [0003] to [0006] of the patent), the way of applying the glue was certainly important, insofar as where the glue was located on the plies and that it performed its function. Since feature (f) of claim 1 as granted had been correctly interpreted by the opposition division, the conclusion on novelty vis-à-vis document D1 was entirely correct.

Admittance of document D12

In its last submission of 11 November 2017 the appellant referred for the first time to a new prior art, document D12, almost six years after expiry of the time limit for filing a notice of opposition. This document was quite clearly late-filed and should therefore not be admitted. Additionally, this document was prima facie less relevant than other prior art documents on file and should not be admitted also for this reason.

Inventive step of claims 1 and 2 of the first auxiliary request

Document D12 disclosed a combined embossing-laminating device, wherein a first ply V1 was micro-embossed by means of a first pair of rollers 3, 5 and a second ply V2 was embossed between an engraved embossing roller 9 provided with embossing projections 9P and co-acting with a pressure roller 11. The protuberances 9P of the embossing roller 9 were larger and less dense (lower number of protuberances per surface unit) than the micro-embossing protuberances 3P of embossing roller 3. The small protuberances 3P were provided to impart the

technical characteristics to the final web (see column 3, lines 47 to 49), while the second set of protuberances 9P, which are larger in size, imparted the visual characteristics (see column 3, lines 49 to 54) and provided decorative patterns. Glue was applied to those larger protuberances 9P. One of the aims of the device disclosed in document D12 was to change the overall appearance of the product by replacing just embossing roller 9, but not the micro-embossing roller 3. All this required that the protuberances 9P be distributed widely on the entire surface of the embossed product, otherwise they would not impart the desired visual characteristics to the web. The skilled in the art would, therefore, not come to the idea of removing those protuberances from the central area of the web and concentrating them along the edges of the web only, as defined in claim 1 as granted of the patent.

Whether document D5 suggested to concentrating glue along the edges of the product was irrelevant, since there was no reason for the skilled in the art to modify the location of protrusions 9P of document D12 and place them only along the edges of the final product. This would actually be inconsistent with the overall teaching of said document. Document D5 was silent on how glue was applied. This document merely stated in a short sentence that glue was applied in the form of a strip ("ein Leimstreifen"), see column 2, lines 28 and 29).

On the one hand the skilled in the art would not have found any incentive to modify the teaching of document D12, and on the other hand he would not have considered document D5 as a potential source of additional information, because, firstly, applying glue in the

form of a strip was incompatible with the dot-like application of glue on embossing protrusions known from document D12, and, secondly, the very purpose of document D5 was to "hide" the bonding between the two plies (see column 1, lines 63 to 65), which was just the opposite of the teaching of document D12, where the glued protrusions 9P provided the visual characteristics of the product. Thus, a combination of documents D12 and D5 was not obvious. The subject-matter of claims 1 and 2 of the first auxiliary request therefore involved an inventive step.

Reasons for the Decision

1. The appeal is admissible.

MAIN REQUEST

2. *Ground for opposition under Article 100(a) EPC 1973 in combination with Article 54 EPC 1973*

2.1 Interpretation of claims 1 and 2 of the main request

2.1.1 The penultimate features of claims 1 and 2 of the main request read "said glue being applied to the front surface of embossed protuberances (7) of said at least one embossed ply" and "said glue being applied to the front surfaces of embossed protuberances (7) of said first external embossed ply", respectively.

Whilst it is true that in all embodiments of the invention (see Figures 4 to 11, 13 to 16, and 18) glue is **only** applied to the front surfaces of embossed protuberances 7 of said first external embossed ply V1, the wording of said expressions does not exclude that

other surfaces of embossed protuberances 7 (hereinafter referred to as "side surfaces") are additionally provided with glue.

2.1.2 Considering the last feature of claim 1 and claim 2 of the main request cannot lead to a different conclusion. These features read "wherein the glue (C) applied to the protuberances allows the plies (V1, V2) to adhere to each other" and "wherein the glue (C) applied to the protuberances glue said first external embossed ply to said intermediate ply (V3) through which the glue seeps allowing reciprocal bonding of said three plies (V1, V2, V3)", respectively.

Although glue applied to the side surfaces of embossed protuberances 7 by itself does not result in adhering the plies V1 and V2 to each other, or in reciprocally bonding the plies V, V2 and V3, applying glue to both the front and side surfaces of embossed protuberances 7 would still allow "the plies (V1, V2) to adhere to each other" (see claim 1) and would still "glue said first external embossed ply to said intermediate ply (V3) through which the glue seeps allowing reciprocal bonding of said three plies (V1, V2, V3)" (see claim 2).

2.1.3 In this respect the respondent has argued that the claims had to be construed in the context of the problem to be solved and the solution given to that problem in the patent. Since the invention was aimed at solving the problem of reducing the negative effect of glue on the features of the final product and in reducing the glue consumption (see paragraphs [0003] to [0006] of the patent), the way of applying the glue, and where it was applied, were important. The person skilled in the art would not apply glue in areas where

it did not positively contribute to the bonding of the plies.

This cannot be accepted. The board is of the opinion that a clear wording of a claim should not be interpreted in a more limited meaning in the light of the description and/or drawings of a patent.

2.1.4 A broad interpretation of claims 1 and 2 of the main request is therefore that glue may be applied to both the front and side surfaces of embossed protuberances 7.

2.2 Document D1 discloses (see paragraphs [0011], [0020], [0037] and [0038], claim 1 and Figure 3) a multi-ply web-like paper sheet product wound in a roll, comprising at least two plies ("geprägte Papierbahnen 18, 19, 20") which are held together by a connecting embossment common to all plies, wherein the individual plies are provided with an embossed pattern extending substantially over the entire area or are optionally smooth, and at least the outer plies have a ply embossed pattern, and wherein the connecting embossment is designed in the form of embossed stripes ("Prägestreifen 4, 5") directly adjoining the edges 2, 3 of the multi-ply web 1 on both sides and occupying a portion of the web width 6. The plies may be joined to each other by gluing, wherein longitudinal edge areas of said sheet product are provided with a greater quantity of glue with respect to at least an intermediate area, which is devoid of glue, see paragraph [0020].

Since glue is applied to at least a portion of the web with a view to bring about additional cohesion of the plies (cf claim 10), document D1 therefore also

discloses the features "said glue being applied to the front surface of embossed protuberances (7) of said at least one embossed ply" and "wherein the glue (C) applied to the protuberances allows the plies (V1, V2) to adhere to each other".

2.3 The subject-matter of claim 1 of the main request is therefore not new vis-à-vis document D1.

3. *Admittance of document D12*

3.1 Document D12 was filed with letter dated 11 October 2017 of the appellant and is hence late-filed.

This document and the submissions of the appellant with respect to this document constitute an amendment to the appellant's case in the sense of Article 13(1) RPBA.

3.2 Since document D12 is cited in paragraph [0028] of the patent in suit and is assigned to the respondent, the board is of the opinion that its admittance into the appeal proceedings does not raise issues which the board or the respondent cannot reasonably be expected to deal with without adjournment of the oral proceedings, cf Article 13(3) RPBA. Moreover, this document discloses an embossing and laminating device which is capable of producing the products as claimed in claims 1 and 2 of the main request and of the first auxiliary request, and is therefore *prima facie* relevant.

3.3 Therefore, the board used its discretion and admitted document D12 into the appeal proceedings, cf Articles 13(1) and 13(3) RPBA.

FIRST AUXILIARY REQUEST

4. *Allowability of the amendment, Article 123(2) EPC*

4.1 Claims 1 and 2 of the first auxiliary request differ from claims 1 and 2 of the main request in that the expression "being applied to" is replaced by the expression "being only applied to".

A basis for the additional word "only" are Figures 4 to 11, 13 to 16, and 18, which show that glue is only applied to the front surfaces of embossed protuberances 7 of said the external embossed ply V1.

4.2 It follows from the above that claims 1 and 2 of the first auxiliary request meet the requirements of Article 123(2) EPC.

5. *Ground for opposition under Article 100(a) EPC 1973 in combination with Article 56 EPC 1973*

5.1 Document D12 represents the closest state of the art. This document relates to a method and a device for embossing plies of web material, such as tissue paper, for manufacturing articles made from multi-ply web material and consisting of two or more plies which are embossed and joined together, see column 1, lines 8 to 16.

The claimed device comprises (see column 2, line 53, to column 3, line 2, and Figures 1 and 2) a first embossing unit with a first embossing cylinder interacting with a first pressure cylinder for forming, on a first ply V1, a first set of protuberances V1p having small sizes and a high density (hereinafter referred to as micro-embossed ply, see page 3, lines 58

to 63); a second embossing cylinder interacting with a second pressure cylinder for forming, on a second ply V2, a second set of protuberances V2p having larger sizes and a lower density than the protuberances of the first set; and an adhesive dispenser for applying an adhesive to one of said plies before laminating. The protuberances V1p impart (see column 3, lines 47 to 54) the technical characteristics of thickness, and therefore of volume, to the material, while the second protuberances V2p provide the visual characteristics of the product, see column 5, line 34 ("decorative design"), and claim 2 ("ornamental motif").

After being embossed and having adhesive applied to it in this way, the plies V1 and V2 are made to pass between the embossing cylinder 9 and the laminating cylinder 13, see column 5, lines 2 to 18. The web material N is shown in Figures 3 and 4. The protuberances V1p of the micro-embossed ply V1 are visible in the lower right-hand corner of Figure 3. It is clear to the person skilled in the art that ply V2 and the micro-embossed ply V1 can only be adhered to each other in areas of the web material where the protuberances V2p, of relatively large size and which form a personalized design, are present, irrespective of whether glue being applied to the protuberances of ply V1 or those of ply V2. In these areas the micro-protuberances V1p are flattened due to lamination, see column 5, lines 24 to 29, and Figure 2.

The state of the art mentioned in paragraphs [0003] to [0006] of the patent, which describes in general terms products made of tissue paper having two or more plies, whereby glue is applied to the front surface of the protuberances of at least one of the two plies and then

the plies are laminated, is not more relevant than document D12.

5.2 The subject-matter of claim 1 of the main request differs from the multi-ply web-like paper sheet product known from document D12 in that:

(i) "wherein longitudinal edge areas (1) of said sheet product are provided with a greater quantity of glue with respect to at least an intermediate area (3), which is devoid of glue or essentially devoid of glue or provided with a smaller quantity of glue compared to the glue applied along the edge areas".

This distinguishing feature solves the objective problem of producing a multi-ply tissue paper product wherein distribution of the glue is optimized to join the plies adequately, with a reduction of the negative consequences of the glue on the characteristics of softness and/or on the absorption capacities of the product, cf paragraph [0009] of the patent.

5.3 The appellant has submitted that document D5 taught to apply glue in the longitudinal edge areas only, see column 1, lines 57 to 61, and that it was obvious to the person skilled in the art, starting from document D12, to apply that teaching to the multi-ply web-like paper sheet product of document D12 with a view to solve the objective problem mentioned above.

This cannot be followed by the board. Document D5 discloses indeed a multilayer paper wound on a roll, having strip-like mechanical or glued joints between individual layers of paper, which extend only at the

edges in the longitudinal direction of the paper roll, cf column 1, lines 57 to 61, and claim 1. A mechanical joint consolidation ("Verquetschung" or "Rändelung") can be made for example by needling, see column 2, lines 18 to 27. According to a further embodiment, bonding can be realised by using a strip of glue, whereby a significantly higher production speed can be achieved compared to a full-surface gluing, without deteriorating the quality of the connection or the paper, see column 2, lines 28 to 33.

Document D5 however does not disclose that the individual layers of paper are embossed. This document does also not disclose that the multilayer paper has a visible design. Moreover, in column 1, lines 47 to 50, it is stated that narrow mechanically embossed knurls, which run along the paper path or at an angle to this, are visible on the finished product, implying that embossing should be avoided. For these reasons the board is of the opinion that the person skilled in the art would not combine document D12 with document D5.

There is yet another reason that the person skilled in the art starting from document D12 would not consult document D5.

One of the objects of document D12 is "to provide a method and a device which can be used to obtain an article in which the two or more embossed plies are joined together by an adhesive, and in which the quantity of adhesive required is relatively limited, in order to avoid excessive stiffening of the end product", see column 2, lines 44 to 50.

According to this document glue does not have to be applied to all protuberances V2p, see the passage in column 3, lines 30 to 38. This passage reads:

> "Advantageously, the adhesive is applied to the extremities of at least some of the protuberances of said second set of protuberances formed on the second ply while said second ply is still engaged on the second embossing cylinder. To limit the quantity of adhesive applied, it is possible to arrange for it to be distributed on only some of said protuberances and not on all of them, for example by means of a patterned dispensing cylinder, or by using protuberances 9P of different heights."

Document D12 itself therefore offers a solution to the problem of avoiding excessive stiffening of the end product by using less glue, namely by applying glue on only some of the protuberances V2p, thereby maintaining the joining of the plies and the visual characteristics of the decorative design extending over a large area of the paper sheet product. Document D12 thus teaches to reduce the amount of glue in all areas where the decorative design is present and does not make a distinction between longitudinal edge areas and (an) intermediate area(s) having different quantities of glue. Moving the decorative design to the edge areas of the paper sheet product would be detrimental to the bonding of the plies and to the visibility of the decorative design.

5.4 In the judgement of the Board, the arguments of the appellant are based on an *ex post facto* analysis based on hindsight, ie in knowledge of the invention.

The board thus comes to the conclusion that the subject-matter of claim 1 of the first auxiliary request is not obvious to the person skilled in the art and thus involves an inventive step within the meaning of Article 56 EPC 1973.

This applies *mutatis mutandis* to claim 2 of the first auxiliary request, which is directed to tissue paper sheet product wound in a roll comprising a first external ply, a second external ply and an intermediate ply.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent in amended form on the basis of:

Claims:
Nos. 1 and 2 filed as first auxiliary request with letter of 18 December 2013,
Nos. 3 to 33 as granted;

Description:
pages 2 to 7 of the patent; and

Drawings:
1 to 20 of the patent.

The Registrar: The Chairman:

N. Schneider M. Poock

Decision electronically authenticated