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D E C I S I O N
of 12 April 2005

Case Number: T 0193/03 - 3.2.6

Application Number: 96114791.5

Publication Number: 0765959

IPC: D04H 1/42

Language of the proceedings: EN

Title of invention:

Filament nonwoven fabrics and method of fabricating the same

Patentee:

UNITIKA LTD.

Opponent:

Kimberly-Clark Worldwide, Inc

Headword:

Relevant legal provisions:

EPC Art. 123(2)

Keyword:

"Amendments - omission of a feature originally disclosed in combination with the features of claim 1"

Decisions cited:

T 0194/84, T 0514/88

Catchword:

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Case Number: T 0193/03 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 12 April 2005

Appellant: UNITIKA LTD.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 9 December 2002
revoking European patent No. 0765959 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. Pricolo
K. M. Garnett

Summary of Facts and Submissions

I. The appeal is from the decision of the Opposition Division posted on 9 December 2002, to revoke European patent No. 0 765 959, granted in respect of European patent application No. 96 114 791.5.

In the decision under appeal the Opposition Division considered that the amendments in claim 1 according to the main and auxiliary requests met the requirements of Article 123(2) and (3) EPC but that the subject-matter of these claims was not novel in the light of the disclosure of document

D1: EP-A-0 637 641.

II. The appellant (patentee) lodged an appeal, received at the EPO on 10 February 2003, against this decision and paid the appeal fee on the same date. With the statement setting out the grounds of appeal, received at the EPO on 15 April 2003, the appellant requested that the patent be maintained in accordance with the auxiliary request rejected by the Opposition Division in the impugned decision or on the basis of newly filed first to third auxiliary sets of claims.

III. In a communication accompanying the summons to oral proceedings pursuant to Article 11(1) of the Rules of Procedure of the Boards of Appeal, the Board expressed the preliminary opinion that there appeared to be no reason to deviate from the conclusion of the Opposition Division that D1 disclosed all the features of claim 1 of the main request, and that it appeared that none of the amendments made to claim 1 in accordance with the

auxiliary requests met the requirements of Article 123(2) EPC.

- IV. Oral proceedings, at the end of which the decision of the Board was announced, took place on 12 April 2005.

The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the claims in accordance with the main and auxiliary requests filed during the oral proceedings.

The respondent (opponent) requested that the appeal be dismissed.

- V. Claim 1 of the main requests read as follows:

"1. A nonwoven fabric made up of filaments comprised of a polylactic acid-based polymer, wherein the polylactic acid-based polymer is a polymer selected from the group consisting of poly(D-lactic acid), poly(L-lactic acid), copolymers of D-lactic acid and L-lactic acid, copolymers of D-lactic acid and hydroxy-carboxylic acid, and copolymers of L-lactic acid and hydroxy-carboxylic acid, said polymer having a melting point of 100 °C or more, or being a blend of such polymers having a melting point of 100 °C or more, characterized in that constituent filaments of the nonwoven fabric are partially bonded with heat and pressure by embossing or ultrasonic fusion bonding, to create individual fusion bonded areas, in that said filaments are bonded only in said fusion bonded areas, and in that the nonwoven fabric has a tensile strength of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m²."

Claim 1 of the auxiliary request reads as follows:

"1. A nonwoven fabric made up of filaments comprised of a polylactic acid-based polymer, wherein the polylactic acid-based polymer is a polymer selected from the group consisting of copolymers of D-lactic acid and L-lactic acid, copolymers of D-lactic acid and hydroxy-carboxylic acid, and copolymers of L-lactic acid and hydroxy-carboxylic acid, said polymer having a melting point of 100 °C or more, or being a blend of such polymers having a melting point of 100 °C or more, characterized in that constituent filaments of the nonwoven fabric are partially fusion bonded with heat and pressure to create individual fusion bonded areas, in that said filaments are bonded only in said fusion bonded areas, and in that said bonding is made by embossing or ultrasonic fusion, and the nonwoven fabric has a tensile strength of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m², each of said individual fusion bonded areas is an area of 0.2 to 15 mm² which is of any configuration, such as circular, elliptic, diamond, triangular, T-shaped, and number sign-shaped, that density of fusion bonded spots with heat and pressure is 4 to 100 areas per cm², and that a ratio of total fusion bonded area with heat and pressure to total surface area of the web is 3 to 50%."

VI. During oral proceedings, the respondents raised objections under Article 123(2) EPC in respect of claim 1 of both requests. These objections can be summarized as follows:

The range for the tensile strength of not less than 5 kg/5 cm was disclosed in the application as filed only in connection with nonwoven fabrics obtained as a result of a manufacturing process including, after the fusion bonding step with heat and pressure by embossing or ultrasonic fusion referred to in claim 1, an entangling treatment during which the filaments were partially or fully separated from one another at the previously bonded areas. There was therefore no support in the application as filed for the broad definition of claim 1 encompassing nonwoven fabrics provided with fusion bonded areas made by embossing or ultrasonic fusion but not subjected to an entangling treatment and thus not provided with areas in which the bonds were disrupted. Accordingly, claim 1 contained subject-matter extending beyond the content of the application as filed.

VII. In respect of these objections, the appellant essentially argued as follows:

Claim 1 of both requests was directed to a nonwoven fabric which was not entangled but only subjected to a bonding step with heat and pressure by embossing or ultrasonic fusion. During the bonding step individual fusion bonded areas were formed in the nonwoven fabric, which were clearly distinguishable in the finished product as spots formed by the localized fusion of several individual filaments.

The claimed subject-matter was supported by the disclosure of the application as filed. Original claim 12 represented a general disclosure of a nonwoven fabric which had a tensile strength of not less than

5 kg/5 cm width and was not entangled. In fact, it was clear that the original description was not limited to entangled nonwoven fabrics. Specific disclosures of embossed, non-entangled fabrics having a tensile strength within the claimed range were found in examples 1 to 8 of the application as filed. Furthermore, it was clear from the statement in the description, according to which "partially bonding with heat and pressure" meant formation of fusion bonded areas by embossing or ultrasonic fusion bonding, that any disclosure referring of "fusion bonding" specifically related to "embossing or ultrasonic fusion bonding".

Reasons for the Decision

1. The appeal is admissible.
2. *Main request*
 - 2.1 The preamble of claim 1 includes all the features of claim 1 of the application as filed.
The feature of the characterizing portion, namely that "constituent filaments of the nonwoven fabric are partially bonded with heat and pressure", is disclosed in claim 2 of the application as filed, which depends on claim 1.
The feature of the characterizing portion, namely that "the nonwoven fabric has a tensile strength of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m²", is disclosed in claim 12 of the application as filed, which also depends on claim 1.

Finally, the feature that the constituent filaments are partially bonded with heat and pressure "by embossing or ultrasonic fusion bonding, to create individual fusion bonded areas" is found in the description of the application as filed, see page 7, lines 2 to 7 of the application as published (cf. also paragraphs [44] and [45] of the patent in suit).

However, in order to be able to decide whether subject-matter has been added to present claim 1 which extends beyond the content of the application as filed, it is necessary to find out not only whether the individual features are disclosed, but also whether their specific combination as claimed is disclosed in the original application (see in this respect for instance T 514/88, OJ 1992, 570, point 7 of the reasons).

2.2 As is apparent from the fact that the feature relating to embossing or ultrasonic fusion bonding is only found in the description, and from the fact that the combination of the features of claims 2 and 12 is not present in the original set of claims because both claims 2 and 12 depend on claim 1 only, the claims of the application as filed cannot form a basis for the specific combination of features of claim 1.

2.3 As regards the description, it indisputedly discloses the feature of original claim 2, namely that the constituent filaments of the nonwoven fabric are partially bonded with heat and pressure in combination with the use of an embossing or ultrasonic fusion bonding process (see page 7, lines 4 to 6 of the application as published). However, there is no support

in the application as filed for the combination of an embossing or ultrasonic fusion bonding process, which provides the finished product with recognizable features (i.e. the fused spots) as confirmed by the appellant's own submissions, with a range for the tensile strength of such nonwoven fabric of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m². In fact, the whole description, excluding some specific examples (see point 2.5 below) consistently refers to the step of embossing or ultrasonic fusion bonding as a preliminary step which is followed by an entangling treatment where individual filaments are partially or completely separated at previously formed partial temporary bonded areas, (see the following passages of the application as published: page 5, lines 53 to 55; page 7, lines 41 to 46; page 8, lines 26 to 35; page 9, lines 48 to 54). Therefore, it can **only** be inferred from the general disclosure in the application as filed that the above-mentioned range for the tensile strength of not less than 5 kg/5 cm applies **exclusively** to a nonwoven fabric which is subjected, after the embossing or ultrasonic fusion bonding step, to an entangling treatment.

- 2.4 The appellant argued that, since the disclosure on page 6, lines 22 and 23 of the application as published of the value of the tensile strength being **not less** than 5 kg/5 cm width was different from the value of 5 kg/5 cm width **or more**, disclosed in relation to the entangling treatment mentioned in example 29 on page 27, it would be apparent to the skilled person that the disclosure on page 6 was not necessarily linked to such entangling process.

However, not only does the Board see no difference between ranges defined by "not less than 5kg/5cm width" or "5kg/5cm width or more", the disclosure on page 6 is clearly linked to a manufacturing process of the nonwoven fabric in which the filaments are partially bonded with heat and pressure, whereby the filaments are enabled to temporarily retain a web form for purpose of subsequent three dimensionally entangling. This process, which is described starting from page 5, line 53 of the original application as published, is in fact intended for the manufacture of the nonwoven fabric "of the invention".

- 2.5 The appellant further referred to examples 1 to 8 as specific disclosures of embossed nonwoven fabrics which, although not subjected to an entangling treatment, had a tensile strength within the claimed range. It is true that the fabrics of these examples have a tensile strength within the claimed range, as is apparent from table 1 on page 15 of the application as filed. However, the lowest value of tensile strength for these fabrics is 11 kg/5 cm width and there is no indication, either in the description relating to these examples or in the remaining parts of the application as filed, that the claimed range applies **as a whole** to fabrics which are not entangled. Values of the tensile strength close to 5 kg/cm width, which is the lowest limit of the claimed range, are only disclosed in connection with entangled fabrics: see in particular tables 3 and 5(a) and 5(b) (more in particular examples 22, 23, 27 in tables 5(a) and 5(b)) of the application as filed. In fact, it is clear that the entangling step affects the tensile strength of an embossed or ultrasonic fusion bonded nonwoven fabric, since it results in individual

filaments becoming partially or completely separated at previously formed bonded areas. Accordingly, there is no support in the application as filed for embossed or ultrasonic fusion bonded but non-entangled nonwoven fabrics (and thus having a tensile strength which is affected only by the embossing or ultrasonic fusion bonding and **not** by the entangling process) that have a tensile strength within the whole range claimed of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m², in particular for such fabrics having a tensile strength of 5 kg/5 cm width.

- 2.6 It follows from the above that the application as filed discloses the features relating to the embossing or ultrasonic fusion bonding step and to the range for the tensile strength of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m² only in a specific combination in which the feature relating to the entangling treatment is also present. Since claim 1 does not include this combination but presents a novel combination which omits the entangling treatment (in fact, according to the appellant's submissions, claim 1 should be read to exclude this treatment), the amendments made to claim 1 introduce subject-matter extending beyond the content of the application as filed, contrary to the requirement of Article 123(2) EPC (see also e.g. T 194/84, OJ 1990, 59).

3. *Auxiliary request*

Since also claim 1 of the auxiliary request includes the combination of the feature relating to the embossing or ultrasonic fusion bonding step with the

range for the tensile strength of not less than 5 kg/5 cm width as measured on the basis of a weight per unit area of 100 g/m² in the absence of the feature relating to the entangling treatment, it contravenes Article 123(2) EPC for the same reasons given in respect of claim 1 of the main request.

4. None of the requests being allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

M. Patin

P. Alting Van Geusau