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D E C I S I O N
of 30 July 2002

Case Number: T 0714/99 - 3.2.6

Application Number: 91105036.7

Publication Number: 0452727

IPC: D04H 13/00

Language of the proceedings: EN

Title of invention:

Laminate material having stretch and recovery process for forming and use of same

Patentee:

KIMBERLY-CLARK WORLDWIDE, INC.

Opponent:

The Procter & Gamble Company

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 123

Keyword:

"Amendments - added subject-matter (no)"
"Novelty (yes)"
"Inventive step (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 0714/99 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 30 July 2002

Appellant: KIMBERLY-CLARK WORLDWIDE, INC.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 26 April 1999
revoking European patent No. 0 452 727 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: H. Meinders
R. T. Menapace

Summary of Facts and Submissions

I. European Patent No. 0 452 727, granted on application No. 91 105 036.7, was revoked by the Opposition Division by decision posted on 26 April 1999. It based the revocation on the finding that claim 1 of the patent as amended according to a main or one of three auxiliary requests lacked inventive step over the disclosure:

D1: EP-A-0 333 212.

II. The Appellant (Patentee) both filed a notice of appeal against this decision and paid the appeal fee on 5 July 1999. On 6 September 1999 the grounds of appeal were filed, with sets of claims according to a main and two auxiliary requests, which differed from the claims forming the basis of the requests underlying the decision under appeal.

III. In an annex to the summons to oral proceedings pursuant to Article 11(2) of the Rules of Procedure of the Boards of Appeal the Board expressed the opinion that claim 1 according to the main request appeared in principle to fulfil the requirements of novelty, inventive step and Article 123 EPC. However, the two-part form (Rule 29(1) EPC) appeared to be more appropriate for properly distinguishing the claim's subject-matter from D1.

With letter of 7 May 2002 the Appellant filed amended sets of claims for his requests, followed by a letter of 3 June 2002 with modified claims 23 for the main and the first auxiliary request. With letter of 6 June 2002

the Respondent suggested modifications to the description to take account of the modified claims of the main request, so that oral proceedings would not be necessary.

With letter of 10 June 2002 the Appellant filed an amended description taking account of these suggestions and withdrew its request for oral proceedings on condition that the Board maintained the patent in that form. With letter of 14 June 2002 the Respondent joined the Appellant in withdrawing the request for oral proceedings on that same condition.

In a communication sent to the parties by fax on 20 June 2002 the Board suggested further amendments in order to comply with the requirements of the EPC and informed the parties that the oral proceedings could be cancelled only if both parties agreed to these amendments.

With faxes dated 21 June 2002 both the Appellant and the Respondent agreed to the suggested procedure. Thereupon the Board cancelled the oral proceedings

IV. The Appellant requested cancellation of the decision under appeal and maintenance of the patent in the form as proposed by the Board in its communication of 20 June 2002.

The Respondent requested dismissal of the appeal, but if the appeal were to be allowed, it should be allowed solely on the basis of the amendments proposed by the Board of Appeal in its communication of 20 June 2002.

V. Claim 1 of the patent according to the request of the Appellant reads:

"A laminate material having stretchability and recovery, comprising a first web (1) of a material selected from the group consisting of a woven material, a knit material and a scrim material, joined to a nonwoven elastomeric web (2) of fibers; the laminate material being free of an elastomeric film, said first web being substantially flat when the nonwoven web is unstretched, the nonwoven elastomeric web being a bonded nonwoven elastomeric web and providing recovery to the laminate,

said fibers being made from a material selected from the group consisting of elastomeric urethane polymer; a copolymer of ethylene and at least one vinyl monomer; block copolymers having two blocks, which alternate with each other; and A-B-A' block copolymers where A and A' may be the same or different end blocks and each is a thermoplastic polymer which contains a styrenic moiety, and B is an elastomeric polymer midblock,

characterised in that the bonding between said webs consists of adhesive bonding between the first web (1) and the bonded nonwoven elastomeric web (2)."

Independent claim 23 reads:

"A process for forming a laminate material according to one of the preceding claims, having stretch and recovery, and having a flat surface when the laminate is in the unstretched state, the laminate material being free of an elastomeric film, comprising the steps of:

providing a first web of a material selected from the group consisting of a knit material, a woven material and a scrim material, proximate to a bonded nonwoven elastomeric web of meltblown fibers; and

joining the first web to the bonded nonwoven elastomeric web of meltblown fibers such that, when the joined first web and bonded nonwoven elastomeric web of meltblown fibers are not stretched, the first web is substantially flat, the joining being performed without an elastomeric film such that the laminate material is free of an elastomeric film, said fibers being formed from a material selected from the group consisting of elastomeric urethane polymer; a copolymer of ethylene and at least one vinyl monomer; block copolymers having two blocks, which alternate with each other; and A-B-A' block copolymers, where A and A' may be the same or different end blocks and each is a thermoplastic polymer which contains a styrenic moiety, and B is an elastomeric polymer midblock,

characterised in that the joining of said webs consists of adhesive bonding between the first web and the bonded nonwoven elastomeric web, whereby the adhesive bonding bonds the first web to the bonded nonwoven elastomeric web in the joining step."

Independent claim 33 reads:

"Use of the laminate material of one of claims 1 to 15 or formed according to one of claims 23 to 32 as a fitted pad, preferably a mattress or table pad, as a material of upholstery as a slip cover, as a cover for a wall or partition panel, or as wearing apparel."

VI. In the decision under appeal the Opposition Division argued that D1 disclosed, apart from the hydraulic bonding method, other possible and non-preferred alternative bonding steps such as needle punching, chemical bonding and thermal bonding. As the patent in suit itself stated that any means of bonding known to the skilled person could be used for carrying out the invention, the skilled person starting from D1 would use any bonding method hinted at by D1 for obtaining a laminate and would thus automatically arrive at the claimed invention without the exercise of inventive skills.

The Appellant argued against this reasoning essentially as follows:

The hydraulic entangling and intertwining of the fibers of the two webs was an essential feature of the laminate material disclosed in D1. The further bonding techniques like adhesive bonding disclosed in D1 related exclusively to the possibility of secondary bonding and not as a possible replacement of the primary hydraulic bonding. Further, for hydraulic bonding loose fibers were essential. With the present limitation to adhesive bonding as the sole means of bonding of the webs and to the use of a bonded nonwoven web, which thus had no loose fibers, sufficient distinction was achieved in respect of D1. It was not obvious to include these features in a laminate material as known from D1.

VII. The Respondent did not argue in substance in appeal, but relied upon the issues pleaded by the Opponent in the opposition proceedings and upon the reasons given by the Opposition Division.

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments (Article 123(2) and (3) EPC)*
 - 2.1 Independent claims 1 and 23 according to the Appellant's request have been amended in respect of claims 1 and 26 as granted in that their subject-matter has been restricted further by the addition of the following features:
 - the nonwoven elastomeric web used in the laminate is a bonded nonwoven elastomeric web,
 - the bonding between this web and the first web consists of adhesive bonding.

The first feature has been originally disclosed in the application documents as filed, see e.g. page 8, second paragraph, the second feature is disclosed on page 14, lines 15 to 21.
 - 2.2 Claims 2, 5, 7 to 10, 12 to 15, 17, 19, 21, 24, 27 to 30, 32 have been amended to be consistent with claims 1 and 23 in respect of the nonwoven elastomeric web being a "bonded" web (Article 84 EPC).
 - 2.3 The description has been amended such as to reflect the limitation to the use of a bonded nonwoven elastomeric web and to the adhesive bonding between the first and the nonwoven web (Article 84 EPC).

2.4 The drawings have been replaced by the properly drafted formal drawings supplied by the Appellant as early as 30 July 1991, but not used by the Examining Division for the grant of the patent. The content of the drawings is identical.

2.5 Thus there is no objection to be made pursuant to Article 123 EPC against these amendments.

3. *Novelty (Article 54 EPC)*

3.1 The subject-matter of claims 1 and 23 differs from the laminate material disclosed in D1, which is the closest prior art, at least by the feature that the bonding between the elastomeric nonwoven web and the first web selected from the group of a woven, a knitted or a scrim material consists of adhesive bonding.

Due to the use of the wording "consists of adhesive bonding" in claims 1 and 23 it is specified in these claims that the bonding between the two webs is **exclusively** by adhesive bonding.

3.2 D1 does not disclose adhesive bonding as the sole means of connecting the two webs together. It is concerned with hydraulic bonding, which results in a structurally different laminate material, as the fibers of the nonwoven web are used to entangle with the material of the first web.

The reference in D1 (page 9, line 6) to other means of bonding like thermal, ultrasonic or adhesive bonding only relates to means of **secondary** bonding, i.e. in addition to hydraulic bonding, to provide added strength. The further mention of other bonding

techniques (page 4, lines 37 to 43) is not specifically directed to adhesive bonding and concerns the bonding techniques for which D1 presents hydraulic bonding as an improvement, thus cannot be seen as an implicit disclosure of alternative exclusive bonding techniques, from which the skilled person merely has to choose.

- 3.3 Thus the subject-matter of claims 1 and 23 is novel. The same applies to the subject-matter of claim 33, for the use of the laminate material of claim 1 or of the material resulting from the process of claim 23 for a specific purpose.

4. *Inventive step (Article 56 EPC)*

- 4.1 The Board concurs with the parties and the decision under appeal that for the purposes of discussing inventive step D1 is the closest prior art.

The two-web laminate material as disclosed in D1 is achieved by hydraulically bonding a first web of woven, knit or scrim material to a nonwoven elastomeric material. For proper bonding the nonwoven material should have sufficiently loose fibers, to enable their entangling with the material of the first web. This results in a laminate material which has a low abrasion and puncture resistance and reduced insulation, filtration, opacity and fluid repellency properties. Furthermore, the process of hydraulic bonding complicates the production process for the laminate.

- 4.2 The object of the present invention is to provide such a laminate material which is more abrasive and puncture resistant, provides barrier properties and which is produced more easily, see page 4, line 25, page 5,

lines 24 to 29.

This object is achieved by the features by which the subject-matter of claims 1 and 23 are distinguished over D1, i.e. the use of a bonded nonwoven elastomeric web material and the exclusive adhesive bonding between the web of knitted, woven or scrim material and the nonwoven web material.

- 4.3 None of the other disclosures available in these proceedings discloses the use of a bonded nonwoven elastomeric web material in combination with a knitted, woven or scrim material using adhesive bonding between the two webs, nor do they give the skilled person a hint to do so.
- 4.4 The argument of the Opposition Division in the decision under appeal that D1 discloses alternative means of bonding like adhesive bonding (page 9, line 6) cannot hold for the reason that this bonding is mentioned solely as secondary bonding, in addition to hydraulic bonding, and not as sole means of bonding as presently claimed. For the reasons already presented in point 3.2 above the bonding methods other than hydraulic bonding mentioned in D1 (page 4, lines 37 to 43) also do not point at exclusive adhesive bonding.
- 4.5 Thus the subject-matter of independent claims 1 and 23 involves inventive step as well. The same applies to the subject-matter of claim 33, which concerns the use of the laminate material of claim 1 or of the material produced according to the process of claim 23, for a choice of specific purpose.
- 4.6 The subject-matter of dependent claims 2-22 and 24-32

concerns preferred embodiments of the laminate material according to claim 1 and the process for forming such a material according to claim 23 (Rule 29(3) EPC), thus it also fulfils the requirements of novelty and inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in the form as proposed by the Board with its communication of 20 June 2002:

description: pages 2 to 12,

claims: 1 to 33,

drawings: Figures 1 to 4.

The Registrar:

The Chairman:

R. Schumacher

P. Alting van Geusau