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D E C I S I O N
of 2 March 1999

Case Number: T 0891/94 - 3.2.5

Application Number: 86110010.5

Publication Number: 0217032

IPC: D04H 13/00

Language of the proceedings: EN

Title of invention:

Composite elastomeric material and process for making the same

Patentee:

Kimberly-Clark Worldwide, Inc.

Opponent:

Mölnlycke AB

Headword:

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Relevant legal provisions:

EPC Art. 56, 123(2)

EPC R. 67

Keyword:

"Addition of subject-matter (main request, yes)"

"Inventive step (auxiliary request, no)"

"Reimbursement of appeal fee (no)"

Decisions cited:

G 0009/91, T 0122/84, T 0986/93

Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 0891/94 - 3.2.5

D E C I S I O N
of the Technical Board of Appeal 3.2.5
of 2 March 1999

Appellant: Mölnlycke AB
(Opponent) 405 03 Göteborg (SE)

Representative: Hyltner, Jan-Olof
AB Dahls Patentbyrå
Box 606
182 16 Danderyd (SE)

Respondent: Kimberly-Clark Worldwide, Inc.
(Proprietor of the patent) 401 North Lake Street
Neenah, Wisconsin 54956 (US)

Representative: Grünecker, Kinkeldey,
Stockmair & Schwanhäusser
Anwaltssozietät
Maximilianstrasse 58
80538 München (DE)

Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 28 September 1994 rejecting the opposition filed against European patent No. 0 217 032 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: H. Ostertag
Members: S. Crane
J.-P. Seitz

Summary of Facts and Submissions

- I. European patent No. 0 217 032 was granted on 19 February 1992 on the basis of European patent application No. 86 110 010.5.

Independent claims 1 and 25 of the granted patent read as follows:

"1. A method of producing a composite elastic material having at least one gatherable web bonded to at least one elastic material, said method comprising the steps of:

tensioning an elastic material to elongate it;

bonding the elongated elastic material at spaced apart locations to at least one gatherable web,

relaxing the composite whereby the gatherable web is gathered between the spaced apart locations to form the composite elastic material,

characterized by using a nonwoven fibrous elastic web having a basis weight of from 5 to about 300 grams per square meter as the elastic material."

"25. An elastic composite material (22, 22') comprising at least one elastic material (4, 4') bonded at spaced apart locations to at least one gatherable web (16, 20, 16', 20') which is extensible and contractible between the spaced apart locations with the elastic web upon stretching and relaxing of the composite material, characterized in that the elastic material is a

nonwoven fibrous elastic web (4, 4') having a basis weight of from about 5 to about 300 grams per square meter."

II. The granted patent was opposed by the present appellants on the ground that its subject-matter, lacked inventive step (Article 100(a) EPC). Among the prior art documents relied upon by the appellants in the course of the opposition proceedings were:

(D1) US-A-4 413 623

(D4) US-A-4 355 425

III. With a letter received on 26 August 1994 the appellants introduced for the first time the objection that the granted patent contained subject-matter extending beyond the content of the application as filed.

The respondent (proprietor of the patent) commented on this objection in a letter received on 30 August 1994.

IV. At the oral proceedings held on 12 September 1994 the Opposition Division informed the parties that it intended to disregard the new objection under Article 100(c) EPC pursuant to Article 114(2) EPC. At the end of the oral proceedings the Opposition Division announced the decision to reject the opposition. The written decision was posted on 28 September 1994.

V. The appeal against this decision was filed on 28 November 1994 and the fee for appeal paid at the same time. The statement of grounds of appeal was received on 7 December 1994. The appellants requested

that the decision under appeal be set aside and the patent revoked in its entirety. They also requested reimbursement of the fee for appeal.

VI. With a letter received on 2 February 1999 the respondents submitted a set of claims according to an auxiliary request for maintenance of the patent in amended form. They confirmed their main request that the appeal be dismissed and the patent maintained unamended.

Independent claims 1 and 24 of the auxiliary request read as follows:

"1. A method of producing a composite elastic material having at least one gatherable web bonded to at least one elastic material, said method comprising the steps of:

tensioning an elastic material to elongate it;

bonding the elongated elastic material at spaced apart locations to at least one gatherable web,

relaxing the composite whereby the gatherable web is gathered between the spaced apart locations to form the composite elastic material,

characterized by using a nonwoven fibrous elastic web having a basis weight of from 5 to about 300 grams per square meter as the elastic material, bonding the nonwoven fibrous elastic web to the gatherable web under conditions which soften said space-apart locations of said nonwoven fibrous elastic web and

relaxing the nonwoven fibrous elastic web immediately after the joining step.

"24. An elastic composite material (22, 22') comprising at least one elastic material (4, 4') bonded in an elongated condition at spaced apart locations to at least one gatherable web (16, 20, 16', 20') which is extensible and contractible between the spaced apart locations with the elastic web upon stretching and relaxing of the composite material, characterized in that the elastic material is a nonwoven fibrous elastic web (4, 4') having a basis weight of from about 5 to about 300 grams per square meter, the fibrous elastic web being bonded to the gatherable web by softening the elastic web at the spaced apart locations and by immediately relaxing the elastic web after joining."

VII. Oral proceedings before the Board were held on 2 March 1999.

VIII. In essence the appellants put forward the following arguments in support of their request:

At least insofar as the use of a nonwoven fibrous elastic web of low basis weight as defined in granted claim 1 as the gathering element of the composite material was concerned the original application gave clear instructions that this had to be bonded to the gatherable web under conditions in which it was softened and then immediately relaxed. The absence of these features from granted claims 1 and 25 therefore constituted an addition of subject-matter. The refusal of the Opposition Division to consider this objection despite its *prima facie* relevance was a substantial

procedural violation which had been further compounded by the giving of written reasons for taking this step in the contested decision on which the appellants had had no opportunity to comment, in contravention of Article 113(1) EPC. Reimbursement of the appeal fee was therefore justified.

With regard to the independent claims of the auxiliary request it had to be noted that it was not fully clear what was meant by "immediate" relaxation of the elastic webs after the joining step. In this respect the definition of "immediately" at lines 32 to 35, page 8 of the patent specification did not offer any real assistance since it too left many variables undefined. In any case, it was apparent that in the process of document D1 there was also immediate relaxation of the elastic element after bonding to the gatherable web. Furthermore, the basis weight of the preferred form of elastic element, namely a reticulated film material, fell within the broad range defined in the claims under attack. Thus the only distinction between the claimed subject-matter was the use of a nonwoven fibrous elastic web as the elastic gathering element. Such a web of the required low basis weight was known from document D4, from which it could also be derived that it would be suitable for gathering a gatherable web and was relatively cheap. The replacement of the relatively expensive reticulated film of document D1 by a substantially equivalent relative cheap non-woven fibrous elastic web as taught by document D4 could not involve an inventive step.

IX. The arguments of the respondents in reply can be summarised as follows:

In the light of various generalising statements in the description it was apparent that the terms of the original filed claims had been drawn too narrowly. It belonged to the established case law that such an inconsistency could be eliminated by removing features from the original claims. Furthermore, when proper account was taken of these generalising statements it was clear that methods of producing the claimed composite material other than that requiring bonding by softening of the elastic web with immediate relaxation were envisaged even in the case where that web was a nonwoven fibrous web of low basis weight. Thus the granted claims did not offend against Article 100(c) EPC.

The appellants had not succeeded in demonstrating that it was obvious for the person skilled in the art that a nonwoven fibrous elastic web of the low basis weight specified in the independent claims could be used to gather a gatherable web. In particular neither of the documents D1 or D4 particularly relied upon by the appellants showed a nonwoven fibrous elastic web being used in this way. Contrary to their assertions the whole thrust of document D4 was in fact to avoid any gathering.

Furthermore, the appellants could point to no teaching in the state of the art which suggested that in order to use a lightweight nonwoven fibrous elastic web in this way it would be necessary to adopt the bonding technique involving immediate relaxation of the elastic web. In this context the meaning of the term "immediately relaxing" as used in the claims was perfectly clear from the description of the patent

specification in which it was accurately defined.

Reasons for the Decision

1. The appeal complies with the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.

2. *Main request*

With regard to the belatedly submitted ground of opposition under Article 100(c) EPC, which the Opposition Division disregarded pursuant to Article 114(2) EPC, the Board adopts the approach set out in decision T 986/93 (OJ EPO 1996, 215). Accordingly, it is necessary to address the question whether, *prima facie*, there are clear reasons to believe that this ground was relevant and would in whole or in part prejudice the maintenance of the European patent (cf. point 16 of the reasons of decision G 9/91 OJ EPO 1993, 408).

In this context the central issue is whether the original application taught as a matter of substance that a nonwoven fibrous elastic web having a basis weight of from 5 to about 300 g/m² could be bonded to the gatherable web other than by the technique set out in the original independent claims, namely bonding "under conditions which soften at least portions of the elastic web" and relaxing the composite web "immediately after the bonding step". The appellants, relying in particular on the passage extending from page 18, line 28 to page 20, line 11 of the original

application, argue that this is not the case. In this passage it is explained in some detail that one difficulty with bonding nonwoven elastomeric webs is that the low basis weight renders them susceptible to losing their ability to contract to their unstretched dimensions if they are subjected, even briefly, to being heated while stretched and allowed to cool in the stretched condition. It is then indicated that this problem would accordingly appear to preclude the use of elastic nonwoven webs having a basis weight of 5 to 300 grams per square meter. In spite of this apparent problem "a distinct advantage of the present invention" is stated to be the ability to attain the elastic characteristics in the composite web by immediately relaxing the composite and thus the low basis weight elastic web after the bonding step.

The Board is satisfied that the person skilled in the art when reading the original application as whole will, on the basis of the explanations given in the passage considered above, be led to the ineluctable conclusion that if he wishes to prepare a composite web of the general type involved wherein the elastic element is a nonwoven fibrous elastic web having a basis weight of from 5 to about 300 grams per square meter then he must use the bonding technique as defined in original claim 1 which involves the immediate relaxation of the web after it is softened in the bonding step. In view of this clear and unambiguous teaching of the original application, granted claims 1 and 25, in which a nonwoven fibrous elastic web of the indicated low basis weight is used but which no longer require bonding under these specific conditions, relate to subject-matter that was not originally disclosed and

therefore contravene Article 100(c) EPC.

The counterarguments of the respondents have concentrated on seeking to identify passages of the original description which could in principle provide support for the deletion from the original claims of the requirements of bonding by softening of the elastic material and immediate relaxation thereof after bonding. They rely in particular on the paragraph bridging pages 4 and 5, the paragraph bridging pages 16 and 17 and page 18, lines 14 to 20. Especially the second of these passages provides an indication that the original independent claims were drafted in a manner which was more restrictive than envisioned by the original description and might well have been seen, as conceded by the appellants, as giving support for a broadening of those claims. But that is not the point. It is not the broadening of the claims as such that is being objected to, but instead the association in the claims of the feature of a particular and special embodiment with those broadened features, contrary to the clear and unambiguous teaching of the original disclosure as explained above.

In view of these considerations the main request of the respondents must be rejected.

3. *Auxiliary request*

Document D1, which is referred to in the contested patent specification as constituting the closest state of the art on which the preamble of granted claim 1 was based, relates to a method of producing a composite elastic material comprising a gatherable web and an

elastic material in which the elastic material is only provided in the areas to be gathered and the unused elastic material is removed. To this end a tensioned strip of elastic material is brought into contact with the surface of a gatherable web and the two are fed in a continuous process between a pair of rollers having heated peripheral projections which soften the elastic material and bond it to the gatherable web at spaced apart locations. Immediately thereafter the composite is fed through a pair of rollers equipped by with peripheral projections effective to sever lengths of the elastic material between the points at which it is bonded to the gatherable web. These severed lengths are then removed. The lengths of elastic material which remain bonded to the gatherable web relax to gather the gatherable web.

The first question which needs to be addressed is whether in the method disclosed in document D1 the strip of elastic material is relaxed "immediately after the joining step" within the terms of claim 1 of the auxiliary request. The ambit of the term "immediately relaxing" has been defined at page 8, lines 32 to 35 of the patent specification in the following way:

"immediately" relaxing the elongated composite means relaxing it before the elastic web remains in its elongated condition for a period of time such that it loses its ability to recover at least about 40 percent of its elongation, as described above in defining the term "elastic".

The term "elastic" is defined at page 4, lines 14 to 18 as follows:

"A material is elastic if it is stretchable to an elongation of at least about 25 percent of its relaxed length, i.e., can be stretched to at least about one and one-quarter times its relaxed length, and upon release of the stretching force will recover at least about 40 percent of the elongation, i.e., will, in the case of 25% elongation, contract to an elongation of not more than about 15 percent."

Although the appellants have criticised the clarity of these definitions, since in their view the testing conditions are not adequately specified, the Board is satisfied that these conditions are standardised in the relevant art so that in principle at least this feature of the claim could serve to distinguish its subject-matter from the state of the art. However, it is apparent from a consideration of the disclosure of document D1 that the requirement of an immediate relaxation of the strip of elastic material must in practice also be met there. The reasons for this lie in the facts that the bonding and severing roller pairs for the strip immediately follow each other, so that at normal machine speeds for the continuous processing of webs of the type in question the time between the bonding and severing steps will only be a fraction of a second, and that despite using an elastic material which in its preferred form is made of an elastomer of the same general type as set in the patent specification and also has a low basis weight, this is still effective after bonding to gather the gatherable web in the required way.

The preferred form of the strip of elastic material used in document D1 is a reticulated film comprised substantially of a mixture of "Solprene P418" (an 85/15 isoprene/styrene radial block copolymer) and "Solprene P414" (a 60/40 butadiene/styrene radial block copolymer). The specific gravity of these two materials is given in the table at the top of column 9 as 0.92 and 0.95 respectively. At the bottom of column 2 it is stated that the strip of elastic material has a thickness of "1 to 50 mils and preferably from about 5 to 20 mils". Ignoring the reticulate nature of the film, which would further reduce its basis weight considerably, it is possible to estimate the basis weight as being of the order of 25 to 1250, preferably 125 to 500, grams per square meter. Thus it can be seen that there is a broad overlap in the range of basis weight of the strip of elastic material proposed in document D1 and that covered by claim 1. In their letter of 2 February 1999 the respondents called the validity of this estimation into question, since in their view the specific gravities given in column 9 of document D1 could refer to the polymeric material in its molten and not in solid state and also because the elastomer contained other components the densities of which were not given. The Board finds nothing persuasive in these arguments, which the respondents did not seek to embellish at the oral proceedings. To the best of its knowledge the density of a polymeric material when stated as one of its identifying characteristics almost invariably relates to normal ambient conditions. In addition the specific gravities quoted in document D1 correspond to those generally known for the type of elastomer involved. Furthermore, it is not a question of calculating an exact basis

weight for one particular example of reticulate film of elastic material but instead of demonstrating the broad overlap between what is claimed and what has been disclosed.

In the light of the above it can be seen that the only genuine distinguishing feature between the subject-matter of claim 1 of the auxiliary request and the state of the art known from document D1 lies in the fact that the strip of elastic material in its preferred form of a reticulate film has been replaced by a nonwoven fibrous web of corresponding basis weight. In this respect the appellants have argued that document D4 already implicitly discloses the use of a nonwoven fibrous elastic web of the required basis weight for gathering a gatherable web.

Document D4 relates to briefs or panties which comprise porous fabric panels and elastic members bonded thereto. As explained in the paragraph bridging columns 2 and 3 the panties are designed to lie flat against the body without visible wrinkles. To this end the elastic member is bonded to the fabric in an unstretched condition. The Board cannot accept the argument of the appellant that this passage also teaches the person skilled in the art to bond the elastic member in stretched condition if appearance is unimportant. Nevertheless the Board does indeed, like the appellants, see it as a corollary to what is said in document D4 that if the elastic member were bonded at spaced apart locations to a gatherable web in a stretched condition and then released it would in fact gather this web. The preferred form of the elastic member disclosed in document D4 is a nonwoven web of

melt-blown fibres comprised essentially of a "Kraton G" rubber, one of the preferred materials listed in the present patent specification. The preferred basis weight of the elastic nonwoven web of document D4 is 87 grams per square meter (cf. claim 2). It is indicated at column 2, lines 49 to 53 of document D4 that an advantage of this nonwoven elastic material is that it is inexpensive.

On the basis of the above information the Board is led to the conclusion that it was obvious for the person skilled in the art to use a nonwoven fibrous elastic web as disclosed in document D4 in the stead of the relatively more expensive strip of reticulate film proposed in document D1.

A last argument of the respondents which needs to be considered is their contention that the references to "a gatherable web" and "a nonwoven fibrous elastic web" in claim 1 imply that the two are substantially coextensive, in other words that the gatherable web is gathered over substantially its whole area rather than just at its margins as disclosed in the embodiment of document D1. The Board can however find nothing in the terms of the claim which would make it proper to apply that limitation to its ambit.

Having regard to the above considerations the subject-matter of claim 1 of the auxiliary request does not involve an inventive step (Article 56 EPC). The same applies *mutatis mutandis* to the subject-matter of independent claim 24.

4. *Reimbursement of appeal fee*

According to Rule 67 EPC the reimbursement of an appeal fee shall be ordered if such reimbursement is equitable by reason of a substantial procedural violation.

In the present case there was clearly no procedural violation, as alleged by the appellant, involved in the fact that the Opposition Division came to a different conclusion to the Board as to the *prima facie* relevance of the belatedly raised objection under Article 114(2) EPC and therefore used its discretion under Article 114(2) EPC to disregard this objection. Nor was the Opposition Division guilty of a procedural error in only stating in the decision the reasons why it was going to disregard the new ground of opposition. Firstly, the main reasons given corresponded in any case to those advanced by the patentees in their letter of 30 August 1994. Secondly, and of more fundamental importance, there is no requirement for this type of discretionary decision to be formally reasoned at all, see T 122/84 (OJ EPO 1987, 177).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.
3. The request for reimbursement of the fee for appeal is rejected.

The Registrar:

The Chairman:

A. Townend

H. Ostertag