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**Datasheet for the decision
of 1 June 2010**

Case Number: T 0147/09 - 3.2.04

Application Number: 01963380.9

Publication Number: 1307115

IPC: A43B 7/12

Language of the proceedings: EN

Title of invention:

Process for waterproofing a semimanufactured product of shoes, clothing items and accessoires, and semimanufactured products obtained by said process

Patentee:

Nextec S.r.l.

Opponent:

W.L. Gore & Associates GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 52(1), 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Inventive step (no)"

"Late submitted request - admitted (no)"

Decisions cited:

T 0219/83, T 0087/05

Catchword:

-



Case Number: T 0147/09 - 3.2.04

D E C I S I O N
of the Technical Board of Appeal 3.2.04
of 1 June 2010

Appellant:
(Opponent)

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Decision under appeal:

Interlocutory decision of the Opposition
Division of the European Patent Office posted
28 October 2008 concerning maintenance of
European patent No. 1307115 in amended form.

Composition of the Board:

Chairman: M. Ceyte
Members: A. de Vries
T. Bokor

Summary of Facts and Submissions

- I. The Opponent lodged an appeal against the interlocutory decision of the Opposition Division posted 28 October 2008 on the amended form in which European Patent No. 1 307 115 can be maintained.

The appeal of the Appellant-Opponent was received 23 December 2008 together with payment of the appeal fee. The statement setting out the grounds followed on 5 March 2009.

- II. The opposition had been filed against the patent as a whole and was based on Article 100(a) together with Articles 52(1), 54 and 56 EPC for lack of novelty and inventive step.

The Opposition Division held inter alia that the subject-matter of granted claim 20 lacked novelty. However it found that the grounds for opposition mentioned in Article 100 EPC did not prejudice the maintenance of the patent as amended according to a third auxiliary request having regard to the following document among others:

A3: EP-B-0 646 061

- III. The Appellant-Opponent requests that the decision under appeal be set aside and the patent be revoked in its entirety and that the fourth auxiliary request not be admitted into the proceedings.

The Respondent-Proprietor requests dismissal of the appeal and maintenance of the patent as held allowable

by the opposition division, or, in the alternative, maintenance of the patent in amended form on the basis of claim 1 and claim 20 of any the first, second or third auxiliary requests filed with the letter of 23 April 2010, or on the basis of a further amended claim 20 according to a fourth auxiliary request filed during the oral proceedings before the Board.

- IV. Oral proceedings were duly held before the Board on 1 June 2010.
- V. The wording of independent claim 20 to a product is as follows for the different requests:

Main Request

"Semimanufactured product (1) of shoes, clothing items and accessories, which has a three-dimensional conformation, at least one inner surface (2) and one outer surface, comprising at least a pair of sheets (5) of a semi-permeable membrane pressed onto said inner surface (2) while temporarily turned inside out, wherein the surface of said sheets (5) which is turned toward the semimanufactured product (1) is provided with a glue pattern characterized in that the sheets (5) extend beyond the profile of the semimanufactured product (1) temporarily turned inside out, so that they adhere to each other and form one or two strips (7) that seal the semimanufactured product (1)."

First Auxiliary Request

Claim 20 is as in the *main* request but for the following text added at the end of the claim:

", each strip (7) comprising a portion of one of said sheets (5) which adheres to a portion of another one of said sheets (5)".

Second Auxiliary Request

Claim 20 is as in the *first auxiliary* request but replaces "portion" by "*surface portion*" (emphasis added by the Board indicates what has changed).

Third Auxiliary Request

Claim 20 is as in the *second auxiliary* request but adds the following text at the end of the claim:

", these two surface portions belonging to the surfaces of said sheets (5) which are turned toward the semimanufactured product (1)".

Fourth Auxiliary Request

Claim 20 is as in the main request but amends the characterizing part to read (emphasis again added by the Board to indicate what has changed):

"characterized in that the sheets (5) extend beyond the profile of the semimanufactured product (1) temporarily turned inside out, so that they adhere to each other *by means of the glue pattern* and form ... " .

VI. The Appellant argued as follows:

The only disputed features of claim 20 (main request) with regard to A3 are adhering membrane strip that extend beyond the profile. In figure 4 of A3 cut parts

5b' and 5b'' are stitched together with facing membranes forming strips the length of the seam. Subsequent waterproofing of the stitching by sealing or welding implies adherence of the facing membranes.

The gap in figure 4 - merely a simplified schematic overview - is not realistic, or may be indicate the present of sealing agent.

Claim 20 does not mention glue connecting the two membranes in the claim, nor is this derivable from the description. The term "adhere" has a much broader meaning. A3 in claim 7 suggests heat-sealing, which as a meaningful alternative to welding involves a heat-sealing agent corresponding to "adhere" in its stricter sense.

Should adhesion imply some difference over sealing/welding, it then represents an alternative that reduces effort. A3 suggests stitching only as an option. It also mentions welding (first embodiment, claim 2) which would result in adherence. Even if gluing is meant, this is commonplace.

Welding as suggested in A3 further implies the features added to claim 20 according to the first to third auxiliary requests.

Claim 20 of the fourth auxiliary request should not be admitted as late filed and not clearly allowable. Apart from adding subject-matter it attempts to reintroduce matter rejected for that reason and subsequently abandoned in opposition.

VII. The Respondent argued as follows:

The glue pattern and adhering of the membrane sheets is causally related in claim 20, main request. The membranes are thus glued together. This can also be inferred from specification paragraphs [0013] to [0015] and the figures 5 to 9.

Even if in A3, figure 4, there might be contact between the membranes at the seams, there is no adhesion or glue. Subsequent sealing of the stitching can be in a number of different ways, most likely using a sealing tape applied on the inside of the seam, the side opposite that of the stitching. This is what the "bridge" in figure 4 of A3 probably illustrates.

Heat-sealing this does not necessarily involve a sealing agent. It may correspond to heat fusing as in plastic bags. Fusing or welding means that the membranes fuse and co-penetrate. In none of these cases are the membranes joined by glue.

Using the same glue pattern for sticking the sheet to the product and forming the strip means that the sheets can be applied and sealed in a single step. A3 requires separate steps.

The first to third auxiliary requests further clarify that the membranes are glued together in contrast to A3.

Claim 20 of the fourth auxiliary request is filed in response to the discussion's focus on the role of the glue and clarifies that it is the same glue pattern that connects the sheets.

Reasons for the Decision

1. The appeal is admissible.
2. *Background of the Invention & Claim Interpretation*
 - 2.1 The patent is concerned with waterproofing a semi-manufactured product (such as a shoe upper) using a semi-permeable membrane applied to the inner surface of the product. This is done by turning the product inside out, inserting a shaped member, and then pressing it between two glue coated semi-permeable sheets. The whole assembly is then turned the right side out again. Both the process and the resultant product are subject of the patent.
 - 2.2 Claim 20 of the requests is directed at the product. It is defined in part in terms of the process: it comprises membrane sheets "pressed onto [the product] inner surface (2) while temporarily turned inside out" that "extend beyond the profile of the ... product temporarily turned inside out" and form strips. The only structural implication of this formulation appears to be that when the product is turned right side out the membrane is on the inside of the product with strips of the membrane protruding inwardly.
3. *Inventive Step : main, first to third auxiliary requests*
 - 3.1 It is uncontentious that A3 represents the closest prior art and that it discloses all the features of the

pre-characterizing part of claim 20 (all requests). Figure 4 read in conjunction with column 7, lines 21 to 50, shows an embodiment of a product with an outer textile layer 2 glued on to stitched together pieces 5b', 5b'' of a laminate of semi-permeable membrane 1 and an inner layer 9. The glue 4 is heat activated implying application of pressure. Where the pieces 5b', 5b'' are stitched together they form an inwardly projecting seam 8c where the membranes 1 face each other. The seam is welded or sealed to waterproof it, column 7, lines 34 to 38; claim 7 also mentions heat-sealing. These seams form strips that will extend beyond the profile of the product when turned inside out.

- 3.2 The Appellant argues that such welding or (heat)sealing of the seams results in the opposing membrane sheets *adhering* to form strips in the sense of the claim.

The Board does not subscribe to this point of view.

The term "adhere" is defined variously as meaning "to stick fast, to cleave, to become or remain firmly attached, to a substance, as by a glutinous surface, or by grasping, etc." (Oxford English Dictionary), or "to hold fast or stick by or as if by gluing, suction, grasping, or fusing" (Merriam-Webster Dictionary). These definitions share a common core meaning, which, in first instance at least, implies the use of an adhesive agent. They differ in their broader application, however, so that there its exact meaning is less certain and may only become clear from context. In claim 20 the only possible context is provided by the mention in the pre-characterizing part of a glue

pattern on the sheet. The Board therefore follows the Respondent's reading of "adhering" in claim 20 in its stricter core sense.

Welding as mentioned in A3 is understood as the two membranes fusing together for example under the application of heat where they contact each other. It does not involve an adhesive, and this option therefore does not correspond to "adhering" in claim 20 as the Board interprets this term in context.

The other option mentioned in A3, (heat)sealing, is understood by the Board to be a generic term which includes various techniques, not all of which involve a sealant that could be regarded as an adhesive. A seam can also be (heat) sealed with sealing tape (possibly with heat-activated glue), which can be applied either across the seam-line on the side of the membranes facing away from the seam, or, alternatively, folded astride the seam, cf. specification paragraph [0015] final sentence. In neither case can the membranes then be said to adhere to each other in the above sense. The disclosure of (heat)sealing in A3 therefore also does not unequivocally read onto to adhering as claimed and understood.

The Board concludes that A3 does not directly and unambiguously disclose membranes that adhere to each other to form the strips. This feature represents the sole difference of the product of claim 20 (main request) over A3.

- 3.3 By mutually adhering the membranes sheets at their edges the sheets are joined to form a seal, to be

understood in the context of the overall aim of waterproofing the product, as follows from specification paragraph [0015]. A3 in column 7, lines 31 to 38, already discloses the general idea of forming sealed joints or seams for the same purpose. Stitching followed by sealing is disclosed as one example ("beispielsweise genäht"). In that example the additional step of sealing serves to restore semi-permeability lost due to the stitching. By comparison an adhered or glued seam is simpler to make in that it avoids any such additional countermeasure. The Board thus formulates the objective technical problem addressed by this feature as *how to provide a sealed joint between the membranes in a semi-manufactured product such as that of A3 that is simpler to make than by stitching.*

The Respondent contends that a glued joint allows for the sheets to be applied to the product and sealed in a single step. However, in the Board's view such a simplified manufacturing method is not merely the result of adhering the membranes at the seams. Rather it depends also on the special steps by which the sheets are applied to the product. These are set out in method claim 1 as granted and involve the pressing of the inside out product between two sheets. These steps may be special in the context of that method, they however fail to produce significant physical differences of the product over that of A3. In this context the Board adds that even if a method for manufacturing a product might be new and inventive, this does not mean that the resultant product itself would also be new and inventive. Process and product must be assessed separately and independently for these

requirements. For the product this is decided on the basis of the product's physical features alone. See also T 219/83 (OJ EPO 1986, 211), reasons 10.

- 3.4 The Board holds that it is common general knowledge of the skilled person, an engineer involved in the clothing and footwear manufacturing industry, that membranes can also be joined in relatively simple manner by gluing them together. It finds particular confirmation in A3, see column 1, lines 50 to 56, where it discusses the prior art. There it states (emphasis added by the Board): "as the glove lining would become pervious at the stitches upon sewing together of the membrane parts, they must be *glued* or welded, or, if they are sewn together, the seams must at least be covered with a sealing agent afterwards" ("da beim Zusammennähen der Membran-Schnitteile ...würde, müssen diese *verklebt* oder verschweisst werden, oder es müssen wenigstens nach allfälligen Zusammennähen die Nähte mit einem dichtenden Mittel überdeckt werden"). A3 itself already recognizes the problems inherent in stitching and offers gluing (and welding) as alternatives.

The skilled person will as a matter of obviousness draw on such common knowledge, or more particularly on the teaching in A3 itself, when searching for an alternative, simpler seam, to join the seams by gluing rather than stitching and so arrive at the subject-matter of claim 20 of the main request without the exercise of inventive skill.

- 3.5 In the first to third *auxiliary requests* the added features are intended to clarify the exact nature of the joint or seam as effectively formed by gluing the

sheets together in the area near their edges. Thus, respective *portions* of the sheets adhere (1st auxiliary request), these are *surface* portions (2nd auxiliary request) on the *same side* of the sheets that *face* the product (3rd auxiliary request). Gluing the seam of a product such as shown in figure 4 of A3, rather than stitching it, inevitably results in the edge portions of the outward surfaces of the membranes, that is those generally facing and glued to the outer layer 2, adhering. These features therefore add nothing of inventive value to the product of claim 20.

3.6 The Board concludes that the invention defined in claim 20 of the main and first to third auxiliary requests lacks inventive step and thus fails to meet the requirements of Article 52(1) with 56 EPC.

4. *Admissibility of the fourth auxiliary request*

4.1 This request was filed at the oral proceedings before the Board, that is at the latest possible stage in the proceedings. Such requests constitute amendments to a party's case in the sense of Article 13(1) of the Rules of Procedure of the Boards of Appeal and are admitted only at the discretion of the Board afforded under that Article. In deciding whether or not to exercise this discretion the Boards have adopted the general criterion that a request be "clearly allowable" see the Case Law of the Boards of Appeal, 5th edition, 2006, sections VII.D.14.2.1 and 14.2.3 and the case law cited therein. This means that it must be immediately apparent to the Board, with little or no investigative effort on its part, that amendments successfully

address the issues raised without giving rise to new ones, see for example T 87/05, reasons 2.

4.2 In the present case claim 20 of the fourth auxiliary request adds to claim 20 of the main request the feature that the membranes adhere to each other "by means of the glue pattern". This is in reference to the glue pattern mentioned in the pre-characterizing part of claim 1 provided on the membrane sheet surface facing the product.

As acknowledged by the Respondent this wording has no explicit basis in the patent but is to be inferred mainly from figures 5 to 9. There it is not immediately apparent (the figures fail to show any glue pattern). Furthermore, the feature had already been rejected in the first instance as adding subject-matter (whereupon the corresponding request was withdrawn).

The Board also has initial doubts as to whether addition of this feature successfully addresses lack of inventive step: at first glance, the only two ways that glue can be applied to the seam - per se obvious as argued above - are by applying it in a separate step after the overall glue pattern 4 (between the membrane and the outer layer 2) has been applied, or already as part of that glue pattern, the option claimed. Both options will be immediately clear to the skilled person, and choosing one over the other does not appear to require any inventive insight.

Such doubts can only be allayed, if at all, by subjecting this request to closer scrutiny. This request consequently fails the criterion that it be "clearly allowable".

5. The Board concludes that the fourth auxiliary request is not admissible. When it considers the amendments made to the patent according to the remaining, main and first to third auxiliary requests, the Board finds that the patent does not meet the requirements of the EPC. The patent must therefore be revoked, Article 101(3)(b) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar

The Chairman

G. Magouliotis

M. Ceyte