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Datasheet for the decision of 21 September 2020

Case Number: T 0604/20 - 3.2.06

Application Number: 11157972.8

Publication Number: 2324803

IPC: A61F13/02, A61L15/58, A61L26/00, C09J7/02

Language of the proceedings: EN

Title of invention:
Adhesive laminates and applications thereof

Applicant:
BRIGHTWAKE LIMITED

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:

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Case Number: T 0604/20 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 21 September 2020

Appellant: (Applicant)	BRIGHTWAKE LIMITED Sidings Road Lowmoor Industrial Estate Kirkby-In-Ashfield Nottingham Nottinghamshire NG17 7JZ (GB)
Representative:	Adamson Jones BioCity Nottingham Pennyfoot Street Nottingham NG1 1GF (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 8 October 2019 refusing European patent application No. 11157972.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Harrison
Members:	T. Rosenblatt
	C. Almberg

Summary of Facts and Submissions

I. The appellant (applicant) filed an appeal against the decision of the examining division, dated 8 October 2019, by which European patent application No. 11 157 972 was refused for lack of an inventive step in its claimed subject-matter (Article 56 EPC).

II. The evidence considered by the examining division in the impugned decision, of which the second list (Exhibit A-L) was relied upon by the appellant also in the appeal procedure, is *inter alia* the following:

D3: GB 2 423 267 A,
D4: Declaration by Erik Båtelson,
D5: "AiO 30" product specification,
D6: "Technical information" for Mepilex® Border,
D7: "Claims and Classification" for Mepilex® Border,
D8: Bill of Materials for Mepilex® Border,
D9: Declaration by Elisabet Lundqvist,
D10: Claims and Classification" for Mepilex®,

Exhibit A: The Nonwoven Fabric Handbook (1993), extract,
Exhibit B: Handbook of Technical Textiles (2000), extract,
Exhibit C: Bresee et al; Fibre Formation During Melt Blowing; International Nonwovens Journal (2003),
Exhibit D: US 2003/0026967,
Exhibit E: EP 0 341 875,
Exhibit F: EP 0 375 211,
Exhibit G: EP 0 368 541,
Exhibit H: Experimental Report,
Exhibit I: Blown Film Extrusion: An Introduction (Kirk Cantor, 2006),

Exhibit J: Declaration of Stephen Thomas,
Exhibit K: Report of analytical work carried out on Mepilex® Border by 3M Corporate Research Laboratory,
Exhibit L: Report of analytical work carried out on Mepilex® Border by the University of Salford.

III. The appellant was summoned to oral proceedings before the Board which took place, according to the appellant's request, in the format of a video conference on 21 September 2020. One Board member was participating remotely. In an annex to the summons, the appellant was also informed of the Board's preliminary opinion on the case, in particular that the subject-matter of claim 1 lacked an inventive step.

IV. The appellant requested that the decision under appeal be set aside and a patent be granted based on the claims submitted on 16 August 2019.

V. Claim 1 according to the appellant's sole request reads as follows:

"An item intended to be affixed to the skin of a user, to which item is attached, via a pressure-sensitive adhesive, a patch of releasably adhesive laminate comprising a structural layer in the form of a film of melt-blown polyurethane, the structural layer carrying on at least part of one side thereof a hydrophobic silicone gel and carrying on at least part of the other side thereof the pressure-sensitive adhesive."

VI. The appellant's arguments may be summarised as follows.

The examining division was incorrect when stating that the technical effect of the structural layer being melt-blown polyurethane was not derivable from the

application as filed. Silicone gels were widely known to have a significant drawback, namely their poor adherence to underlying structural layers, as was shown in e.g. D3. The term "melt-blown" used in the present application referred to materials produced by the melt-blowing process, as shown in e.g. exhibits A-G. This was distinct from a continuous polymeric film. Due to its fine fibre web structure, the melt-blown polyurethane structural layer was particularly effective at carrying silicone gel on one side and pressure-sensitive adhesive on the other side. The only rational understanding of the particular preference for melt-blown polyurethane expressed on page 4, lines 1 to 3, of the description was that the melt-blown polyurethane structural layer was particularly effective at performing its only stated function: carrying silicone gel on one side and pressure-sensitive adhesive on its other side in the adhesive laminate.

Therefore the objective technical problem was to be formulated as "the provision of an item to be affixed to the skin of a user, wherein the item comprises a releasably adhesive laminate comprising a structural layer that is a more effective carrier of pressure-sensitive adhesive on one side and silicone gel on the other".

Even if the objective problem were only seen as being to provide an alternative structural layer of the laminate as the Board had stated, it would anyway not have been obvious for a skilled person to replace the blown film structural layer of Mepilex® Border with a melt-blown polyurethane structural layer. The terms "melt-blown" in the pending claims and "blown" in the Mepilex® Border laminate, refer to materials produced

by different processes, as was evident from exhibits I to L, which gave rise to structurally distinct materials (i.e. an extremely fine fibre web versus a continuous film layer). The skilled person would not have considered these materials to be interchangeable and it would not have been customary to produce polyurethane films by melt-blowing instead of by blown film extrusion.

Moreover, the skilled person would not have been capable of recreating either the structure of Mepilex® Border or the structure defined in the claims on file, when using a structural layer formed of a porous material such as melt-blown polyurethane. At the time the invention was made, it was only known to coat porous structural layers on both sides with silicone gel because the liquid silicone gel precursor composition would soak through and saturate both surfaces of the structural layer prior to curing. Exhibit H was filed to show this effect. The problem of coating a porous structural layer on only one side with silicone gel was overcome by the appellant with the use of the method disclosed at page 10, lines 16-23 of the application as filed.

Reasons for the Decision

1. Having considered the arguments and evidence submitted by the appellant in writing and orally, the Board confirms the conclusion reached by the examining division that the subject-matter of claim 1 lacks an

inventive step (Article 56 EPC).

2. It is uncontested by the appellant that the subject-matter of claim 1 differs from the closest prior art item "Mepilex® Border", as disclosed in D4 to D10, only by the feature that the polyurethane structural layer is in the form of a film of melt-blown polyurethane (underlining by the Board), whereas in Mepilex® Border a film of blown polyurethane is used.

The Board notes that in the present case the expression "film of melt-blown" is understood to designate an extremely thin fibre web (this is also confirmed in the appellant's grounds of appeal on page 5, 3rd complete paragraph).

3. The application as filed does not mention any particular advantages of the use of melt-blown polyurethane compared to blown films. In this regard, the material is disclosed in the description on page 4, lines 2 to 3 in the following manner: "...the currently preferred material for the structural layer is polyurethane, and in particular melt-blown polyurethane." No explanation as to why it is particularly preferred is given here, nor is there any such information in the remaining passages of the description, claims or figures. Moreover, neither is there any mention in the application of particular difficulties of adhering hydrophobic silicone gels to (porous) structural layers, let alone to only one side thereof. In regard to the latter, claim 1 anyway does not exclude the gel being present on both sides of the structural layer; instead claim 1 merely defines what the structural layer carries on at least part of one side and the other side, whereby the hydrophobic silicone gel can be on both sides. The appellant's

argument during oral proceedings that the claim should nevertheless be read in that sense, simply has no basis in the application as filed; the claim does not exclude the possibility of silicone gel (or even other components) being on both sides.

The alleged technical effect achieved by the only distinguishing feature, the polyurethane structural layer being a melt-blown layer (instead of a blown film), can therefore not be taken into account when formulating the objective technical problem, since it is underivable from the application as filed.

4. In this context, the Board also finds the appellant's argument unconvincing, that the only rational understanding of the skilled person from the above cited passage of the description would be that melt-blown polyurethane is particularly effective at performing the only stated function of the structural layer, namely carrying silicone gel on one side and pressure-sensitive adhesive on the other side. The particular preference given to melt-blown polyurethane may also be for other reasons, such as cost reasons, availability or even other material properties as all of these are technically logical in context.

The evidence referred to by the appellant does not change the Board's conclusion. D3 is a published patent application which does not represent common general knowledge and is also not referred to in the application in suit. The passage therein on page 4, referred to by the appellant, does not even address the adherence of hydrophobic silicone gels to polyurethane layers; it simply mentions use of primers or other treatments for bonding silicone bio-adhesives to another layer. Exhibits A to G also do not specifically

address the combination of such gels with polyurethane structural layers. Exhibits A to C merely explain the anyway undisputed well known melt-blown process, whereas exhibits D to G are patent applications generally directed to items or dressings adhering to human skin and employing melt-blown polyurethane layers, without any hint to silicone gels, let alone adhesion difficulties.

5. Consequently the technical problem formulated by the appellant, see above VI., is not an objective one. Instead, the Board finds that starting from the closest prior art item, the Mepilex® Border, as disclosed in D4 to D10, an objective technical problem could be seen in the provision of an alternative structural layer.

6. It was not disputed that melt-blowing polymeric layers, including such layers of polyurethane, were well known to the person skilled in the art at the priority date of the application. The Board concludes therefore that it would have come within the customary practice of the skilled person to replace the structural layer in the form of a polyurethane film in the Mepilex® Border item by a melt-blown polyurethane layer when considering alternative structural layers. The subject-matter of claim 1 therefore does not involve an inventive step, contrary to Article 56 EPC.

7. As already stated in the Board's preliminary opinion, the appellant's counter arguments, based on exhibits I and J to L only confirm the existence of a structural distinguishing feature, which is anyway acknowledged (both by the examining division previously and by the Board). Moreover, these exhibits contain no indication which would lead the skilled person, entrusted with the above objective problem, to exclude melt-blown (non-

woven) layers, which indisputably belong to common general knowledge, as a(n obvious) solution to that problem. No additional argument was submitted in the oral proceedings in this particular respect. The Board has thus no reason to deviate from its preliminary view, which is hereby confirmed.

8. The Board confirms its preliminary conclusion also regarding the appellant's further counter arguments, to some extent repeated in oral proceedings, in which it essentially alleged that the skilled person would not have been capable of reproducing the claimed subject-matter nor the Mepilex® Border laminate structure using a film of melt-blown polyurethane. As already stated in the preliminary opinion, the alleged difficulties, such as documented by exhibit H (in which anyway only scant mention of the method and materials used has been made), and the possible significance in this regard of using a melt-blown film, pre-coated on one side with the pressure-sensitive adhesive, are not mentioned in the application as filed. Therefore, the Board's conclusion, that the use of a melt-blown film instead of a blown film does not exceed customary practice of the skilled person when considering alternative materials for the structural layer, is not altered. In as far as the appellant argued that the skilled person would not be able to reproduce Mepilex® Border using a melt-blown film, it may be added that this is not what the skilled person is required to do when solving the objective problem (not least since the claim is not limited to the laminate structure in Mepilex® Border where e.g. silicone adhesive is only on one side, as explained above). The Board is also not convinced that a liquid silicone precursor necessarily would (entirely) soak through a melt-blown polyurethane structural layer, because such behaviour depends *inter*

alia on the specific properties of the melt-blown (e.g. its thickness and inter-fiber spacing) and the liquid precursor (e.g. its viscosity), nothing of which is defined in the claim by corresponding limiting features. As already mentioned, exhibit H is not considered persuasive, since too little information is available in regard to the relevant properties of the materials used there and in regard to the relationship with the materials used in the application or in Mepilex® Border. Moreover, as also stated in the Board's communication, any considerations regarding how the laminate might be produced address a method of manufacture which are not reflected in product claim 1.

9. In the absence of any set of claims meeting the requirements of the EPC, the decision of the examining division to refuse the application in suit in accordance with Article 97(2) EPC, can only be confirmed. The appeal must therefore be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Grundner M. Harrison

Decision electronically authenticated