

OPINION UNDER SECTION 74A

Patent	EP(UK) 0742305
Proprietor(s)	Don & Low Limited
Exclusive Licensee	
Requester	Klöber Limited, on 17 July 2008
Observer(s)	Don & Low Limited
Date Opinion issued	14 October 2008

The request

1. This opinion relates to a request by Klöber Limited (“the requester”), for an opinion as to the validity of EP0742305B2 (“the patent”), owned by Don & Low Limited (“the proprietor”).
2. The patent was filed on 3 May 1996, claiming a priority date of 3 May 1995. It was granted on 20 December 2000, and following Opposition proceedings in 2004 before the European Patent Office (EPO), was maintained in amended form. It is still in force, and designates the United Kingdom. The title of the patent is “Permeable fabrics”, and in particular it relates to gas and/or vapour permeable fabrics for use as a building material.
3. In an earlier opinion (Opinion 11/08, issued 7 July 2008), I came to the conclusion that the requester was infringing the patent by supplying and/or offering to supply a material called “Roofshield ®” for use as a building material in the United Kingdom.
4. The requester now seeks an opinion that the patent is not valid, since it is not new and does not involve an inventive step in view of the following documents:

- Annex K: A product data sheet for “Multidenier 3000”.
- Annex L: A “Corovin” brochure entitled “High Tech in perfection”.
- Annex M: US5271883A (Timmons et al.)
- Annex N: US5308691A (Lim et al.)
- Annex O: A copy of pages 28 and 32 of the September 1995 edition of “Roofing”.

Annex P: A copy of the priority document of the patent.

5. In particular, the request sets out the following grounds for invalidity:
 - i. The patent is not new in view of Annexes K and L;
 - i. The patent is not new in view of Annex O;
 - ii. The patent lacks an inventive step in view of Annexes L and M combined; and
 - iii. The patent lacks an inventive step in view of Annexes M and N combined.

Observations

6. Observations have been filed by the proprietor, in which it refutes the allegations of invalidity and submits that the request should be refused. Four further documents are provided as evidence:

Annex W: A copy of EP0402474A1 (Timmons et al)
Annex X: The patent holder's analysis of Annexes K and L
Annex Y: The patent holder's analysis of Annexes M and N
Annex Z: A copy of a report entitled "Daltex Roofshield ® Pore Size Tests"

7. Observations in reply were subsequently received from the requester.

Preliminary issue (I) - should the request be refused?

8. In its observations, the proprietor argues that the request should be refused on the grounds that it is vexatious, as the reliance upon multiple grounds of invalidity is not in accordance with the spirit and intention of the Opinions procedure. It also points out that an EP equivalent of US5271883A (Annex N) was considered during the opposition proceedings before the EPO. Therefore, there are two separate issues to consider on this subject.

The law

9. Rule 94 is the relevant provision of the Patents Rules 2007, and states that:

"94.-(1) The comptroller shall not issue an opinion if –

- (a) the request appears to him to be frivolous or vexatious; or*
- (a) the question upon which the opinion is sought appears to him to have been sufficiently considered in any relevant proceedings."*

Section 74 of the Patents Act (“the Act”) states that:

“74A.-(1) The proprietor of a patent or any other person may request the comptroller to issue an opinion –

(a) as to whether a particular act constitutes, or (if done) would constitute, an infringement of the patent;

(b) as to whether, or to what extent, the invention in question is not patentable because the condition in section 1(1)(a) or (b) above is not satisfied.”

Limitation of the number of arguments in the request

10. In its observations, the proprietor states (at p2, using its emphasis) that that “Referring to the Practice Manual regarding Section 74A (2), Opinions on validity are limited to the question of whether or not the Invention is not patentable, **either** because it is not new **or** because it does not involve an inventive step”.
11. It seems to me that the intention of paragraph 74A.02 of the Manual of Patent Practice, which is the passage I believe the proprietor refers to in its observations, is to make it clear that opinions on validity are restricted to the grounds of novelty and inventive step only, and therefore do not cover the grounds of industrial applicability and excluded matter. There is no suggestion in this passage that only one argument can be advanced per request.
12. Furthermore, looking at the wording of the section 74A(1)(b), there is no explicit limitation of the number of arguments that can be advanced in a single request for an opinion to just one, and there is no such restriction in any of the Patents Rules. I have been provided with no additional evidence by the proprietor that multiple grounds for invalidity are outside the “spirit and intention” of the opinions process, and can find none. Therefore, I cannot refuse the request as being vexatious on these grounds.

Has the question been sufficiently considered in relevant proceedings?

13. The proprietor also points out that US5271883 (Annex M) is related by a common priority document to EP0462574 (Annex W), which has already been considered in the Opposition proceedings before the EPO. Upon further inspection of these documents it is clear that the passages the requester relies upon in US5271883 are also present in the EP document, and the requester acknowledges this fact in its observations in reply. The question therefore arises as to whether I

should refuse to deal with this aspect of the request under Rule 94(1)(b). Looking at the Opposition proceedings, available on the EPO's online file register, EP0462574 formed the basis of an inventive step objection along with US4766029, EP0309073 and US5208098. It is therefore clear that the subject matter present in both US5271883 and EP0462574 has not previously been considered in combination with the teaching of US5308691 (Annex N). In view of this, I cannot refuse to consider the requester's argument that the patent is obvious in view of US5271883 in combination with US5308691.

Preliminary issue (II) – the evidence

14. The proprietor also argues in its observations that the requester does not provide any evidence that Annexes K and L were in the public domain prior to the priority date of the invention. Furthermore, it questions the authenticity of Annex L, and raises arguments that the document has been manipulated in order to strengthen the requester's case.

15. In response to this, the requester asks that Annex L be withdrawn from consideration, to enable the requester to carry out "further investigations as to the history and content of this document". It also asks for Annex K to be withdrawn without prejudice. In view of this I do not intend to consider these documents any further in giving my opinion, and so shall ignore the various arguments put forward by both sides as to their relevance to the validity of the patent.

Basis of the opinion

16. In view of the above, I shall therefore proceed with this opinion on the basis of the following grounds raised by the requester:

- i. The patent is not new in view of Annex O; and
- i. The patent lacks an inventive step in view of Annexes M and N combined.

The patent

17. The description of the patent specifies, at paragraph [0001], that the invention relates to gas and/or vapour permeable fabrics for use in building construction. It explains that such fabrics act as a barrier to water droplets and solid particles, and yet retain a vapour permeability, which permits the fabric to "breathe". It also explains, at paragraph [0004], that typical melt-blown materials, having an average pore size of 15µm, when incorporated into a structure for use as a roofing underlay, exhibit poor barrier qualities when exposed to water spray,

which even the addition of hydrophobic additives does not adequately overcome. According to paragraph [0009], compression of a melt-blown layer by conventional means partially collapses the porous structure of the laminate, leading to properties more usually associated with a film while maintaining its fibrous characteristics. Claim 1 of the patent is the only independent claim, and specifies:

Use as a building material of a laminated fabric comprising at least two layers of non-woven sheet material, said fabric comprising:

- (i) a first layer of compressed melt-blown material having an average pore diameter in the range from 1µm to about 8µm, and*
- (ii) a second layer of a material having an open porous structure,*

and wherein the second layer of material is of a spun-bonded structure.

Novelty

18. The requester alleges that the invention is not new in view of the launch of the proprietor's Roofshield ® product at the "Exporoof '95" exhibition, as reported at pages 28 and 32 of the September 1995 edition of "Roofing" (Annex O). According to p28 of Annex O, the "Exporoof '95" exhibition was due to take place between September 17 and 20 1995, which is before the filing date of the patent (3 May 1996), but after the priority date (3 May 1995).

19. With reference to the priority document of the patent (Annex P), I understand the requester's argument as being that while claim 1 specifies "Use as a building material of a laminated fabric...", such use is not supported by the priority document. The requester therefore believes that the claims of the patent are not entitled to the priority date, and that the launch of the product at the "Exporoof '95" exhibition constitutes prior disclosure.

The law

20. The relevant provisions of the Act with regard to novelty and priority are found in sections 1, 2 and 5, where it is stated that:

"1.-(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say:

- (a) the invention is new;*
- (a)*
- (b)*
- (c)"*

.....

“2.-(1) An invention shall be taken to be new if it does not form part of the state of the art.

(2) The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any way.”

.....

“5.-(1) For the purposes of the Act the priority date of an invention to which an application for a patent relates and also of any matter (whether or not the same as the invention) contained in any such application is, except as provided by the following provisions of this act, the date of filing the application.

(2) If in or in connection with an application for a patent (the application in suit) a declaration is made, whether by the applicant or any predecessor in title of his, complying with the relevant requirements of rules and specifying one or more earlier relevant applications for the purposes of this section made by the application or predecessor in title of his and the application in suit has a date of filing during the period allowed under subsection (2A)(a) or (b) below, then-

(a) if an invention to which the application in suit relates is supported by matter disclosed in the earlier relevant application or applications, the priority date of that invention shall instead of being the date of filing the application in suit be the date of filing the relevant application in which that matter was disclosed, or, if it was disclosed in more than one relevant application, the earlier of them;”

(b).....

The alleged disclosure

21. Page 32 of Annex O shows an article entitled “Proctor’s protective membrane”. The first two sentences of this article are as follows:

“The A Proctor Group of Blairgowrie, Scotland, will be launching a pitched roof membrane at Exporoof. The company say Roofshield underlay, which complies with all current UK Building Regulations, has a water resistance similar to polythene with excellent breathability.”

22. A small inset picture is provided next to the article, entitled “Roofshield Pitched Roof Breather Underlay”, showing a photo of what would seem to be part of a roof. Underneath the photo a number of bullet points list some details of the product.

Analysis

23. For the purpose of this analysis I have assumed that the product exhibited at Exporoof did have the features of the membrane described in the patent.

24. On this assumption, claim 1 will be anticipated if the, or any, invention encompassed by claim 1 is at the same time not entitled to its declared priority date, but disclosed in the description of the patent.

25. To determine this question I first have to construe the invention of claim 1 and then ask whether it is supported by the matter disclosed in the earlier application. In doing so a purposive construction is to be placed upon the claims. In *Kirin-Amgen Inc v Hoescht Marion Roussel Ltd* [2005] RPC 9, Lord Hoffmann said that the question to be asked is “what would the person skilled in the art have understood the patentee to have used the language of the claim to mean?”.

26. Claim 1 refers to the use of the laminate as a “building material”. I consider that the person skilled in the art would understand these words as covering at least use of materials that go to form part of a building itself. The patent specifies one such use, as a roofing tile underlay, at several points throughout the description, such as in paragraphs [0002], [0003], and [0029]. However, the description also says, at paragraph [0030], that “The invention finds particular use in articles comprising non-woven laminated fabrics of the invention such as tarpaulins, camping equipment e.g. tents, building covers such as scaffolding covers or the like”. Accordingly I construe the invention to cover the use of the laminate material in such applications.

27. The requester has argued that there is a key difference between this and the priority document which mentions some specific uses such as roofing underlays, tarpaulins and building covers such as scaffolding covers, but not building materials “in general”. There is no suggestion that the construction of the laminate itself is not disclosed in the priority document, only the range of possible uses.

28. I am unconvinced by this argument. The granted patent refers to use “as a building material”, which is indeed a relatively broad term, but the

examples given in the description are all present in the priority document.

29. In view of the above, I am of the opinion that, on the basis of the documents before me, claim 1 is entitled to its priority date and is accordingly not anticipated by the launch of Roofshield ® in September 1995.

Inventive step

30. The requester alleges that the invention is obvious with regard to the disclosures in US5271883 (Annex M) and US5308691 (Annex N), which were both published before the priority date of the patent. In particular, it alleges that US5308691 discloses non-woven melt-blown/spunbonded laminates and their use as a building material, and that it is clear from the description at column 4 lines 45 to 61 of US5308691 that such materials can be optimized for their intended use by controlling their porosity. Hence, it argues that there is no invention in selecting a particular pore size range for melt-blown/spunbonded laminates, especially since it submits that US5271883 discloses compressed melt-blown/spunbonded laminates having a pore size within the range claimed by the patent.

The law

31. Sections 1 and 3 of the Act set out the criteria for patentability as regards inventive step, and state that:

“1.-(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say:

- (a)....*
- (b) it involves an inventive step;*
- (c)....*
- (d)....*

.....

3. An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).”

32. Although it is not referred to by either side in the request or subsequent rounds of observations, I shall follow the test as set out in *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588, the restated version of the well-

known Windsurfing approach to inventive step. In particular, I have to consider the following:

(1)(a) Identify the notional “person skilled in the art”;

(1)(b) Identify the relevant common general knowledge of that person;

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

(3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art, or do they require any degree of invention?

The person skilled in the art

33. I consider that the person skilled in the art here is someone involved in the design and manufacture of fabrics for use as a building material.

The common general knowledge of the skilled person

34. I believe that the skilled person’s common general knowledge would at least cover all commonplace non-woven laminate materials. I also consider that they would have knowledge of the effects of pore size on the properties of the laminate material.

The inventive concept of the claim

35. The inventive concept of claim 1 can be expressed as the use of a laminate fabric as a building material, comprising a first melt-blown layer, laminated with a second, spunbonded layer, where the melt-blown layer is compressed and has an average pore size in the range of 1µm to about 8µm.

The differences between the “state of the art” and the inventive concept

36. I agree with the requester that the closest prior art document is US5308691. Looking in more detail at this document, the opening paragraph at column 1 states that “This invention relates to calendered laminates of spunbonded and melt-blown polypropylene webs which combine high opacity with low air and water permeability but good

moisture vapour transmission, and good barrier properties against bacteria". It goes on to explain at column 1, lines 11 to 18, that the use of spunbonded polyethylene sheet as a "housewrap" is well known for its strength, durability, opacity and ability to reduce air penetration, and maintain a high vapour permeability rate.

37. Figures 1 and 2 of this document are reproduced below. Figure 1 shows a two layer laminate with spunbonded layer 10 and melt-blown layer 20, and figure 2 shows a three layer laminate with spunbonded layers 30, 40 and melt-blown layer 50, as is specified at column 3 lines 29 to 44.

FIG. 1

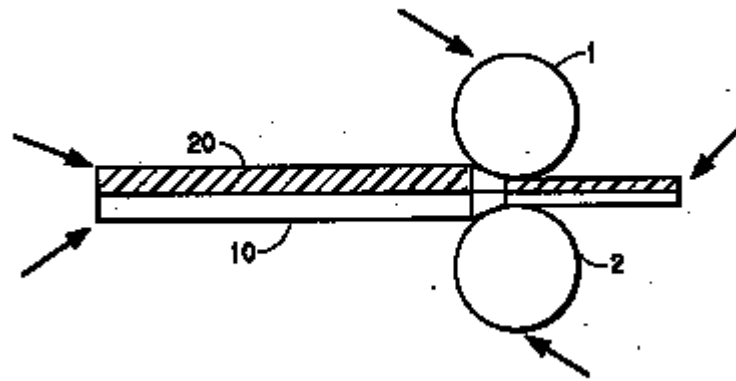
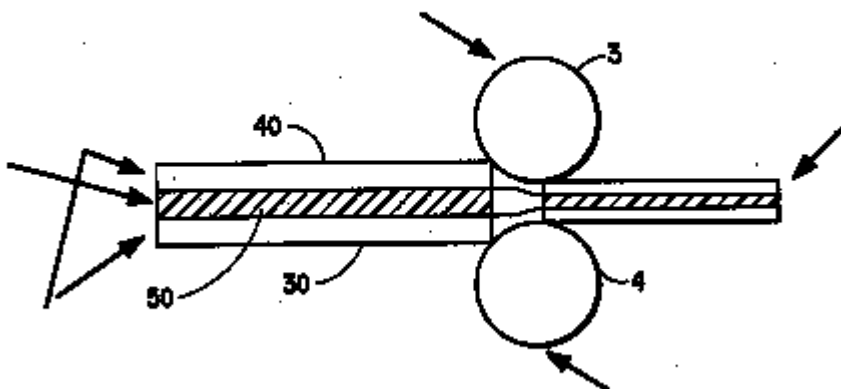


FIG. 2



38. Although it is not stated explicitly, it is clear that compression of the melt-blown layer occurs during the lamination step as a result of the action of heated metal rolls 1, 3, and unheated resilient rolls 2, 4, as can be seen from each of the above figures. Furthermore, since a

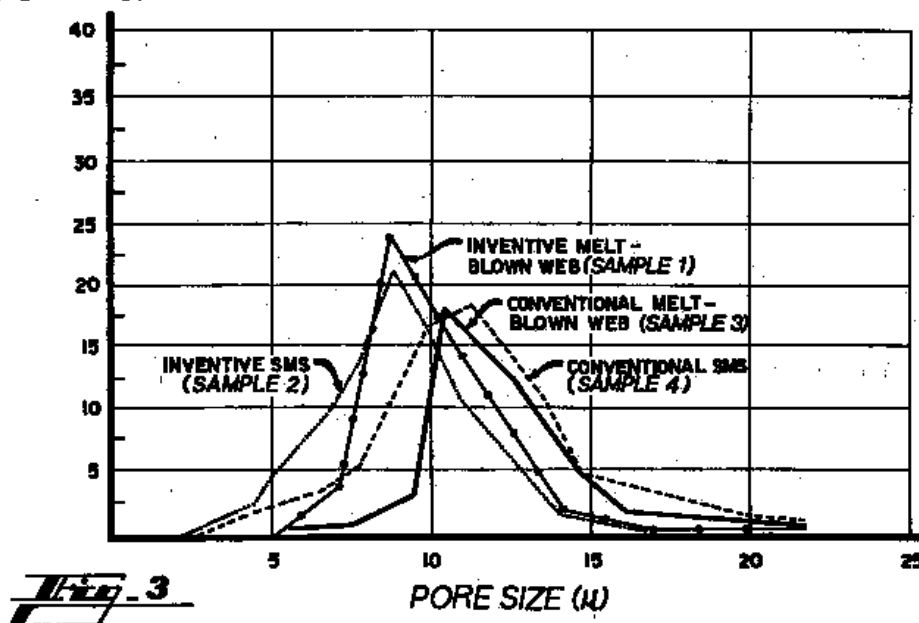
“housewrap” is a well known term in the art, which I am satisfied fulfils the “use as a building material” requirement of claim 1 of the patent, the only feature of claim 1 missing from this document is the requirement for the melt-blown layer to have an average pore size in the range of from 1µm to about 8µm.

Would this difference be obvious to the skilled person?

39. The requester relies upon the passage at column 4 lines 45 to 61 to assert that it is clear that the laminates produced by the method of US5308691 could be optimized for their intended use by control of their porosity. This passage states that when used as a housewrap, the composite material should have a “Gurley-Hill porosity of 30-75 seconds”. It also states that when used as sterile packaging, the laminate should have a “Gurley-Hill porosity of 5-50 seconds”. The porosity of the laminate is also mentioned at column 3 lines 44 to 45, where it states that “Calendering reduces the web's porosity and imparts to it its desirable barrier properties”, and at column 3 lines 56 to 59, where it says “A balance of pressure and temperature is sought to produce the desired calendering conditions for controlling the porosity of the resulting composite sheet”.
40. Having read US5308691 carefully, I agree with the requester that it teaches the use of calendering to control web porosity to within a particular range, in order to achieve the desired physical properties of a housewrap. However, there is no mention in this document of average pore size, and the porosity of a material is not the same thing. The requester acknowledges this fact in its observations in reply, where it states that (at paragraph 7.2) “It will be appreciated that there is a difference between “porosity” as measured by the Gurley-Hill method and “pore size”. The Gurley-Hill method, in essence, tests the degree of air penetration resistance at a fixed pressure. Further “porosity” is known to be a fraction of voids in a material. Whilst both are obviously affected by “average pore size”, neither are synonymous with it: to calculate porosity from pore size clearly needs further data (e.g. number of pores) and vice versa..... they have an effect on each other but there is no direct parity”. Although I agree with this, it reinforces my conclusion that while the notional skilled person would be aware of the effect of pore size on the properties of a fabric, there is nothing in the disclosure of US5308691 that would lead him/her to investigate the selection of particular pore sizes in laminates used as housewraps, less still pore sizes falling with the particular range specified in claim 1 of the patent. All that would concern the skilled person is the need to adjust the conditions under which the laminate is produced in order to achieve a laminate within a defined range of porosities.

41. Evidence for the absence of a direct correlation between average pore size and porosity is provided by the proprietor at Annex Z, which is a report of laboratory test results conducted on their own product Roofshield®, by the test laboratory of Pira International. The proprietor states in its observations that Roofshield® is made in accordance with the patent, and has an average pore size of 5.6 to 7µm. However, the Gurley-Hill porosity of the Roofshield® product according to this report was found to be in the range of 0.47 to 0.82 seconds, which is much lower than the Gurley-Hill value of 30 to 75 seconds for a housewrap taught by US5308691.
42. US5271883 discloses a method of forming a nonwoven web having fine fibres and a small pore size distribution. A number of uses are mentioned, including use as wipers, towels, industrial garments, and medical drapes (column 1 lines 23 to 25), but none which could be said to be use “as a building material”. I do not therefore think that this document would be in the path of the skilled person mentioned above. But even if I am wrong, I do not think it is at all clear that US5271883 shows a laminate material with an average pore size within the range specified by claim 1. This document discloses a method of forming a nonwoven web having fine fibres and a small pore size distribution. It also discloses a three layer spunbonded/melt-blown/spunbonded (SMS) laminate whose manufacture includes a compression step (column 4 lines 54 to 66). The pore sizes of the laminate formed according to the teaching of this document are then discussed with reference to figure 3, which is a graph of pore size (in microns) against percentage distribution (see below).

% NUMBER DISTRIBUTION



43. With reference to column 5 lines 45 to 50, this document specifies that the SMS laminate formed by the teaching of this document has a pore size “predominantly in the range from 5 to 10 microns, with a lesser amount from 10 to 15 microns, with virtually no pores greater than 22 microns, and with the peak of the pore size distribution shifted downward by up to 5 microns”.
44. Although this document clearly discloses an SMS material having a compressed melt-blown layer, I do not think that it points the reader to a laminate where the average pore size is within the range of 1 to 8 microns, as required by claim 1 of the patent. Figure 3 only shows a distribution of the pore sizes, there is no disclosure of the average pore size. Although it specifies that the pore sizes are *predominantly* in the range of 5 to 10 microns, I am not satisfied that there is clear disclosure of an average pore size falling within the range of 1 to about 8 μ m, as required by claim 1. For instance, it is noted that the peak of the distribution curve for the SMS material shown in figure 3 appears to be outside of the range of 1 to 8 μ m.

Conclusion

45. I conclude that claim 1 of the patent is both novel and involves an inventive step in view of the evidence presented to me.

Gareth Prothero
Examiner