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**Datasheet for the decision
of 10 May 2010**

Case Number: T 0530/09 - 3.2.06

Application Number: 00306786.5

Publication Number: 1076125

IPC: D05C 17/02

Language of the proceedings: EN

Title of invention:

Carpet backing that provides dimensional stability

Patentee:

Darwin Enterprises, Inc.

Opponent:

Colbond bv

Headword:

-

Relevant legal provisions:

EPC Art. 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Inventive step (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 0530/09 - 3.2.06

D E C I S I O N
of the Technical Board of Appeal 3.2.06
of 10 May 2010

Appellant: Colbond bv
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
30 December 2008 concerning maintenance of the
European patent No. 1076125 in amended form.

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. de Crignis
K. Garnett

Summary of Facts and Submissions

- I. European Patent No. 1 076 125, granted on application No. 00 306 786.5, was maintained in amended form by the decision of the opposition division posted on 30 December 2008.

Claim 1 as maintained reads as follows:

"A tufted carpet (10) comprising:

a) a primary backing having upper and lower sides and comprising at least two layers, including:

(i) a lower backing layer (214) and

(ii) an upper backing layer (215);

b) a plurality of tufts of yarn (21) sewn through the primary backing, said tufts of yarn:

(i) being exposed on the upper side of the primary backing for forming face yarns (11); and

(ii) forming a plurality of back stitches (22) on the lower side of the primary backing; and

c) a back coating (26) that covers and encapsulates the back stitches and locks in the fibres;

wherein at least a major portion of the back stitches secure each layer of said primary backing to each other layer, characterised in that said lower backing layer (215) comprises a nylon-coated, non-woven, spunbonded polyester material and in that the upper backing layer comprises a woven material comprising ribbons of polypropylene, polyethylene or combinations of polyethylene and polypropylene."

- II. The opposition division did not allow the late introduction of the ground for opposition under Article 100(b) EPC, as it was considered that it could have been submitted earlier. Furthermore, it held that

the subject-matter of claim 1 was novel (Article 54 EPC) over the disclosure in

D11 US-A-2 913 803

in that the upper backing layer of D11 was not made of polypropylene and/or polyethylene such as required according to claim 1. However, the subject-matter of claim 1 was not considered to involve an inventive step (Article 56 EPC) when starting from D11 and combining it with the teaching of

D1 US-A-4 140 071

which refers to the material of the woven layer being polypropylene. With regard to the first auxiliary request, which specified in its claim 1 the lower backing layer further as comprising a nylon-coated non-woven, spun bonded polyester material, the opposition division found that D11 failed to disclose the woven material as being the upper backing layer and the lower layer comprising the above specified material. D1 referred to the upper backing layer as comprising a polyester non-woven sheet but did not refer at all to a nylon-coating of this layer. Accordingly, a combination of D11 and D1 did not result in the claimed carpet construction. With regard to the combination of D11 and D4, D4 did disclose a list of materials but did not suggest the claimed combination. Accordingly, this request was found to meet the requirements of the EPC.

III. Appellant I (opponent) filed a notice of appeal against this decision on 26 February 2009, including a request for oral proceedings, and paid the appeal fee on the

same day. On 5 May 2009 the statement of grounds of appeal was filed. The appellant (opponent) requested the revocation of the patent and submitted that the patent in suit did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. Additionally the objections concerning inventive step were further substantiated by referring, in addition to the documents already cited above, to the following documents:

D2 WO-A-98/4900

D4 Textile month, May 1980, pages 1, 4548, 49, 54-56.

and newly filed

D12 JP-A-10 317 268 (abstract and machine translation).

IV. Appellant II (patent proprietor) also filed a notice of appeal on 3 March 2009, having already paid the appeal fee on 27 February 2009. On 8 May 2009 the statement of grounds of appeal was filed. It was requested to set aside the decision of the opposition division and to maintain the patent according to a main request, or a first auxiliary request annexed to the grounds of appeal; additionally oral proceedings were requested.

V. In a communication dated 5 February 2010 accompanying the summons to oral proceedings the board pointed out that it considered the subject-matter of claim 1 as being limited in its scope with regard to the granted and the originally filed claim 1 and that it could not see a case for insufficiency of disclosure. Moreover, it referred to the relevance of in particular D11, D12

and D4 with regard to the objections concerning inventive step.

VI. With its letter of 9 April 2010, appellant II (proprietor) filed comments concerning novelty and inventive step over D11 and D12 in combination with D1 or D4.

VII. Oral proceedings were held on 10 May 2010.

The appellant/opponent requested that the patent be revoked.

No representative for the appellant/proprietor appeared at the oral proceedings, as had been announced with its letter of 16 March 2010. It had requested in its grounds of appeal that the decision under appeal be set aside and the patent be maintained on the basis of the main, alternatively the first auxiliary requests; alternatively in its letter dated 9 April 2010 it requested that the appeal be dismissed.

Claim 1 according to the main request differs from claim 1 as maintained by the opposition division in the characterising portion, which reads as follows:

" ...characterised in that said upper backing layer (215) comprises a woven material comprising ribbons of polypropylene, polyethylene or combinations of polyethylene and polypropylene and in that the lower backing layer comprises a non-woven material or a composite of a woven or non-woven material and a plastic sheet material (13)."

Also claim 1 according to the first auxiliary request differs from claim 1 as maintained by the opposition division in the characterising portion, which reads as follows:

" ...characterised in that said upper backing layer (15) comprises a woven material comprising ribbons of polypropylene, polyethylene or combinations of polyethylene and polypropylene and in that said lower backing layer comprises a non-woven, spun bonded polyester material."

VIII. In support of its requests the appellant (proprietor) had argued in its written submissions essentially as follows:

D11 made no suggestion of using any particular material other than those actually described, i.e. felt, jute or cotton. Moreover, it did not refer to dimensional stability and or discuss how the stability would be affected if lighter materials were used.

D1 was mainly concerned with the provision of an upper backing layer that is readily dyeable. No nylon coated spun-bonded polyester for the lower backing layer was disclosed. Accordingly, the combination of documents D11 and D1 did not result in the claimed subject-matter.

D4 disclosed nylon-coated spun-bonded polyesters (Colback) as being suitable for use in carpet backings. No disclosure of how and in what combination such materials could be used was present.

D12 was not concerned with dimensional stability and did not suggest the use of spun-bonded or nylon coated polyester either.

Accordingly, none of the cited combinations of documents steered the skilled person to the claimed subject-matter, which, therefore, involved an inventive step.

IX. The arguments of the appellant (opponent) may be summarised as follows:

D11 (from 1959) disclosed a pile-faced fabric comprising a nonwoven and a woven material which could be coated with an adhesive layer. The woven material was disclosed as being yarns of jute and cotton or any other type or types or mixtures of textile fibres. For the non-woven felt material as well, all suitable textile fibres could be used.

The skilled person trying to improve the dimensional stability of the tufted carpet had to choose an appropriate material for the woven and the non-woven textiles.

D4 listed on the six filed pages the companies which sold carpet backings and indicated in rows the trade names of the backings, their materials and recommended use, and the specific varieties which were available and their characteristics (colour, construction (warp/weft number), dyeability, basis weight). It gave the skilled person an overview of the available fabrics for carpet backings by listing the suitable commercially available fabrics. This overview was

disclosed in a monthly journal which was particularly addressed to the practitioners working in the textile field. The skilled person desiring to find alternative materials for the woven and/or for the non-woven part of a carpet backing certainly would consult such a compendium of commercially available fabrics.

The list in D4 was arranged in alphabetical order of the companies and so started with Amoco Fabrics and set out that there were a lot of "PolyBac™" varieties available, which all were woven polypropylene fabrics in different warp/weft constructions and colours. Also the further companies selling woven carpet backings and listed in Part One of this overview offered woven polypropylene fabrics (Koninklijke Jutespinnerij en Weverij Ter Horst & Co.; Low & Bonar Textiles Ltd; Low Bros. & Co. Ltd.; H. & A. Scott Ltd; Scott & Fyfe Ltd; Synthetic Fabrics Ltd; Synthetics Industries Ltd; Tay Textiles Ltd.; J. & D. Wilkie Ltd.).

Accordingly, when desiring to find an alternative to the natural fibres for the woven backing layer as suggested in D11 (jute, cotton) the skilled person would deduce from this list that actually polypropylene represented the standard polymeric fibre for woven backing layers, as any of these commercially available layers included polypropylene. Hence, when using any of these standard materials the skilled person would inevitably arrive at the claimed tufted carpet.

With regard to the auxiliary requests, D4 also provided information concerning the nonwoven part of carpet backings. With reference to the Colback™ backings, available from British Enkalon Ltd., it was specified

that these were nonwoven constructions based on bicomponent polyester core/nylon skin yarns and available in various basis weights, that they were dyeable and noted for stability, something which extended their suitability to all gauges and types of carpets. Also from British Enkalon Ltd, Colbond™ backings were listed as also being based upon polyester fibres and specified as being excellent for stability. Hence, when desiring to improve the stability of the tufted carpet further, not only for the woven part of the backing but also for the nonwoven part of the backing, appropriate materials were suggested in D4. Accordingly, the skilled person would inevitably arrive at the tufted carpet claimed in the auxiliary request and claimed in the request maintained by the opposition division. The patent should be revoked.

Reasons for the Decision

1. The appeal is admissible.
2. *Main Request*
 - 2.1 Amendments

Independent claim 1 is based on originally filed claims 1 and 5. Accordingly, the requirements of Article 123(2) EPC are met.
 - 2.2 Inventive step - Main Request
 - 2.2.1 D11 - published 1959 - represents the closest prior art. It refers to a tufted carpet comprising a woven layer made of yarns of jute and cotton or any other type of

textile fibres and a superposed non-woven foundation layer of felt which is coated at the back with latex. A plurality of tufts of yarn is sewn through the woven and the non-woven layer (Figure 3).

- 2.2.2 The subject-matter claimed in claim 1 differs from this disclosure in that the material for the woven layer is specified as comprising ribbons of polypropylene, polyethylene or combinations of polyethylene and polypropylene.
- 2.2.3 Concerning the aim of its invention, D11 refers to the carpet being immune from distortion or crushing (D11: col. 1, l. 21/22; col. 2, l. 19/20). Hence, the object of D11 is consistent with that of the patent in suit, which also refers to dimensional stability (paragraph [0012] of the patent in suit). This aim is considered to be generally relevant for carpet backings.
- 2.2.4 In the absence of any disclosure about what degree or extent of stability or distortion of the carpet would be relevant and how it should be determined in either the disclosure of D11 or the patent in suit, the objective technical problem underlying the patent in suit can only be related to the distinguishing feature, namely the material of the backing. Accordingly, it can only be related to the choice of an appropriate material for the yarns of the woven layer of the carpet with a view to obtaining a carpet having the desired stability. According to claim 1 of the patent in suit it is solved by weaving ribbons of polypropylene, polyethylene or combinations thereof.

2.2.5 Hence, when starting from the embodiment of Figure 3 in D11, and desiring to find information about alternative materials with regard to stability of the finished article, the skilled person would certainly consult such a "Guide to tufted carpet backings" as available in the form of D4. D4 lists fabrics which are commercially available for such purpose, their respective suppliers, the specific characteristics of the fabrics and their availability with regard to construction and colour. For carpet backings, all materials suggested for the woven layers comprise polypropylene strips, which thus can be identified as the standard material for such purpose. In particular reference is made to woven polypropylene fabrics available from Amoco Fabrics under the trade name "PolyBac", which are specified as providing high stability.

2.2.6 The skilled person seeking for suitable materials as an alternative to the cotton and jute which are used in D11 would thus obtain from the teaching of D4 the information that suitable woven fabrics included polypropylene and polypropylene strips, most of these materials and strips particularly being specified as improving stability. The use of such a material is accordingly directly suggested. Hence, no inventive step can be attributed to the claimed combination. Therefore, the subject-matter of claim 1 of the main request does not involve an inventive step as required by Art. 56 EPC.

3. *First auxiliary request*

3.1 Amendments

Claim 1 according to the first auxiliary request differs from claim 1 according to the main request in that the lower backing layer is further specified as comprising a non-woven, spun bonded polyester material.

This amendment is based upon page 11, lines 7 to 9 of the application as originally filed (corresponding to paragraph 0018 of the patent in suit) which reads:

"... the first backing layer may comprise a non-woven, spun-bonded material comprised of polyester, polypropylene or nylon."

Accordingly, the requirements of Article 123(2) EPC are met.

3.2 Inventive step

3.2.1 The above citation of the basis for the amendment in the patent in suit refers, without differentiation to polyester, polypropylene and nylon. Accordingly, the choice of polyester for the non-woven spun-bonded material is one from a list of equivalent materials.

3.2.2 D11 constitutes the closest prior art as set out above for the main request. In D11 the non-woven layer 1 is specified as being a felt layer of animal or other suitable textile fibres (col. 1, l. 34/35).

3.2.3 Accordingly, the subject-matter of claim 1 differs from D11 additionally to the issues set out above in that the felt layer is now specified as comprising a non-woven, spun bonded polyester material.

3.2.4 As already set out above, the objective technical problem can only relate to the distinguishing feature. Accordingly, when desiring to improve the stability of the final article, the problem is related to the choice of a suitable material for both the woven layer and the non-woven layer of the carpet backing. The issue concerning the woven layer has already been considered for the main request above. The issue concerning the nonwoven layer is solved in claim 1 of the first auxiliary request by choosing spun bonded polyester material.

3.2.5 D4 discloses in its lists fabrics which are available for such purpose. With regard to the nonwoven part of carpet backings it suggests *inter alia*

- (a) spun bond bicomponent polyester/nylon (core/skin) nonwovens available from British Enkalon Ltd. under the name of "Colback",
- (b) polyester nonwovens under the trade name "Colbond", also available from British Enkalon Ltd., or
- (c) spun bond polyester under the trade name "Lutradur", available from "Carl Freudenberg & Co..

For all these materials it is stated that they provide dimensional stability.

3.2.6 Accordingly, the skilled person looking for an alternative to felt for the nonwoven material, an alternative which additionally provides improved stability to the tufted carpet, would directly be led

to apply such other known material. Hence, no inventive step can be attributed to the claimed combination. Therefore, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step as required under Art. 56 EPC.

4. *Request for dismissal of the opponent's appeal -
(Request to maintain the patent with the amended claims
as allowed by the opposition division)*

4.1 Amendments

Claim 1 as maintained by the opposition division differs from claim 1 according to the first auxiliary request in that said lower backing layer is further specified as comprising a nylon coated, non-woven, spun bonded polyester material.

This amendment is based upon claim 3 as originally filed which reads:

"... the first backing layer comprises a non-woven, spun-bonded nylon-coated polyester material, ..."

Accordingly, the requirements of Article 123(2) EPC are met.

4.2 Inventive step

- 4.2.1 D11 constitutes the closest prior art as set out already for the previous requests. The subject-matter claimed in claim 1 differs from this disclosure additionally in that the nonwoven layer is specified as comprising a nylon-coated, spun bonded polyester material.

- 4.2.2 As already set out under point 3.2.5 (a) above, D4 already suggests for use as primary or secondary backing layer in carpets a spun bond nylon-coated polyester material as the nonwoven layer. Accordingly, the skilled person would inevitably follow such a suggestion when the specified advantages of this material (dyeable and noted for stability as well as suitable for all gauges and types of carpet) are taken into account.
- 4.2.3 Accordingly, the skilled person looking for an alternative nonwoven material which provides improved stability to the tufted carpet would directly be led to use such a material, as D4 directly refers to such a characteristic of these polymeric nonwovens. Hence, no inventive step can be attributed to the claimed combination. Therefore, the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step as required under Art. 56 EPC.
5. Consequently the subject-matter of the claim 1 of all the appellant (-proprietor)'s requests lacks inventive step (Article 56 EPC), and none of these requests is allowable.

Order

For these reasons it is decided that:

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

The Registrar

The Chairman

M. Patin

P. Alting van Geusau