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DECISION
of 1 September 2004

Case Number: T 1004/01 - 3.3.7
Application Number: 95904810.9
Publication Number: 0734321
IPC: B32B 5/24
Language of the proceedings: EN

Title of invention:
Breathable, cloth-like film/nonwoven composite

Patentee:
KIMBERLY-CLARK WORLDWIDE, INC.

Opponent:
The Procter & Gamble Company

Headword:

-

Relevant legal provisions:
EPC Art. 100(c), 123(2)

Keyword:
"Extension of subject-matter - all requests (yes)"
"Disclosure (no) - exemplified parameter value - lower limit
of an open ended claimed range"
"Amendments (auxiliary requests) - features closely associated
to the exemplified parameter value - not allowable"
"Undisclosed feature - technical contribution - yes"

Decisions cited:
G 0009/92, G 0004/93, G 0001/93, G 0001/03, T 0201/83,
T 0051/90, T 0270/90, T 0384/91, T 0526/92

Catchword:

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Case Number: T 1004/01 - 3.3.7

D E C I S I O N
of the Technical Board of Appeal 3.3.7
of 1 September 2004

Respondent: The Procter & Gamble Company
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Cincinnati, Ohio 45202 (US)

Representative: Hirsch, Uwe Thomas
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Appellant: KIMBERLY-CLARK WORLDWIDE, INC.
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Representative: Grünecker, Kinkeldey,
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
4 July 2001 concerning maintenance of European
patent No. 0734321 in amended form.

Composition of the Board:

Chairman: R. E. Teschemacher
Members: B. J. M. Struif
G. Santavicca

Summary of Facts and Submissions

I. The mention of the grant of European patent No.0 734 321 with respect to European patent application No. 95 904 810.9, filed as international application PCT/US94/13948 on 6 December 1994, was published on 17 March 1999. The granted patent comprised the following independent claims:

"1. A breathable film/nonwoven laminate comprising:

a film (12) formed from a blend including, on a dry weight basis, based upon the total weight of the film, from about 10 to about 68 percent of a predominately linear polyolefin polymer, from about 30 to about 80 percent of a filler and from about 2 to about 20 percent of a bonding agent, said film having a water vapor transmission rate of at least $100 \text{ g/m}^2/24$ hours and

a fibrous polyolefin nonwoven web (14) bonded directly to said film to form a laminate, said laminate having a peel strength of at least 24 grams."

"9. A personal care absorbent article comprising:

a body side liner and an outercover with an absorbent core disposed therebetween,

said outercover comprising a film (12) formed from a blend including, on a dry weight basis, based upon the total weight of the film, from about 10 to about 68 percent of a predominately linear

polyolefin polymer, from about 30 to about 80 percent of a filler and from about 2 to about 20 percent of a bonding agent, said film having a water vapor transmission rate of at least 100 g/m^2 /24 hours, and

a fibrous polyolefin nonwoven web (14) bonded directly to said film to form a laminate, said laminate having a peel strength of at least 24 grams."

- "10. An article of clothing including a breathable film/nonwoven laminate which comprises:

a film (12) formed from a blend including, on a dry weight basis, based upon the total weight of the film, from about 10 to about 68 percent of a predominately linear polyolefin polymer, from about 30 to about 80 percent of a filler and from about 2 to about 20 percent of a bonding agent, said film having a water vapor transmission rate of at least 100 g/m^2 /24 hours, and

a fibrous polyolefin nonwoven web (14) bonded directly to said film to form a laminate, said laminate having a peel strength of at least 24 grams."

- "11. A process for forming a breathable film/nonwoven laminate comprising:

forming a pre-extrusion blend including, on a dry weight basis, based upon the total weight of the film from about 10 to about 68 percent of a predominately linear polyolefin polymer, from

about 30 to about 80 percent of a filler and from about 2 to about 20 percent of a bonding agent, forming a film (12) from said pre-extrusion blend, stretching said film at a temperature less than the melting point of said predominately linear thermoplastic polymer, and bonding said film to a fibrous polyolefin nonwoven web (14) at a temperature less than the melting point of said predominately linear thermoplastic polymer in said film to form a laminate."

"14. A process for forming a film/nonwoven laminate comprising:

forming a film (12) layer including, on a dry weight basis based upon the total weight of the film, from about 30 to about 80 percent filler and from about 20 to about 70 percent polyolefin polymer,

stretching said film layer,

bonding a fibrous nonwoven web directly to said film layer by a plurality of fibers within said fibrous nonwoven web which contain a polyolefin polymer and a bonding agent, said polyolefin polymer and said bonding agent being present on at least a portion of an exterior surface of said fibers to create a peel strength of at least 24 grams."

"15. A film/nonwoven laminate comprising:

a film (12) layer including, on a dry weight basis, based upon the total weight of the film, from about 30 to about 80 percent of a filler and from about 20 to about 70 percent polyolefin polymer, and

a fibrous nonwoven web (14) bonded directly to said film layer by a plurality of fibers within said fibrous nonwoven web which contain a polyolefin polymer and a bonding agent, said polyolefin polymer and said bonding agent being present on at least a portion of an exterior surface of said fibers to create a peel strength between said film layer and said fibrous nonwoven web of at least 24 grams."

II. On 14 December 1999 a notice of opposition was filed against the granted patent, in which the revocation of the patent in its entirety was requested on the grounds of Article 100, paragraphs (a), (b) and (c), EPC with respect to lack of novelty, lack of an inventive step, insufficient disclosure and extension beyond the content of the application as filed, respectively. The opposition was supported *inter alia* by the following documents:

D2: EP-A-0 066 672

D3: EP-A-0 309 073

D4: US-A-4 789 699

III. In an interlocutory decision notified by post on 4 July 2001, the opposition division held that the amended patent based on a set of claims 1 to 3 submitted at the oral proceedings before the opposition division as the only auxiliary request, fulfilled the requirements of the EPC. Claim 1 of the sole auxiliary request corresponded to claim 11 as granted. The decision was further based on a main request to maintain the patent as granted.

The reasons of the decision of the opposition division can be summarised as follows:

- (a) The independent claims of the main request apart from claim 11 were not in compliance with the requirements of Article 123(2) EPC. In particular the feature specifying that the peel strength be "at least 24 grams", which value was only disclosed in a specific example, was associated to a multiplicity of further features of said example and could not be detached from said further features. These features included the specific kind of bonding agent, the amount thereof, the exact nature of the film and of the nonwoven polymers as well as the thermal and mechanical aspects of the process of bonding. Furthermore, the peel strength could not be regarded as immaterial to the invention. Thus, the main request was not allowable.

- (b) As regards the auxiliary request, the subject-matter of claim 1 was disclosed, since the bonding agent was defined in the description and the skilled person got sufficient information to

select and mix the three claimed components to produce the film. A minor obscurity in the definition of the bonding agent according to the description was rather an objection under Article 84 EPC, which was no ground for opposition.

- (c) Having regard to novelty, D3 did not disclose a process wherein a predominantly linear polyolefin polymer was admixed with the required amounts of a filler and of a bonding agent to make a breathable film, which could be directly bonded to a nonwoven web. Hence, the subject-matter of claim 1 of the auxiliary request was novel.

- (d) As regards inventive step, D3 was the closest prior art document. Although D3 disclosed a great variety of polyolefins, it did not suggest any polyolefin to be used in a specific amount to lower the bonding temperature. This gap could not be filled by D2, which disclosed a breathable and heat-sealable film to be used for waterproof products, since D2 did not give any incentive that the film was suitable for bonding to a nonwoven web as claimed. Furthermore, D4 disclosed the manufacture of an elastomeric nonwoven sheet having both elastomeric and adhesive properties and concerned a quite different technical field. Thus, the claimed subject-matter of the auxiliary request involved an inventive step.

- (e) Consequently, the subject-matter of the sole auxiliary request fulfilled the requirements of the EPC.

IV. On 12 September 2001, the proprietor (appellant) filed a notice of appeal against the above decision and paid the prescribed fee on the same day. With the statement setting out the grounds of appeal, received on 14 November 2001, the appellant submitted five auxiliary requests.

V. In a communication for the preparation of the oral proceedings the board addressed the points to be discussed, in particular whether or not the amended feature "of at least 24 grams" was allowable under Article 123(2) EPC.

VI. By letter dated 30 July 2004, the appellant submitted twelve sets of amended claims numbered as auxiliary requests 1a to 1c, 2, 2a, 2b, 3, 3a, 3b, 4, 4a and 5 replacing the auxiliary requests on file.

Compared to claim 1 as granted the following amendments were made to each claim 1 of those requests:

- Auxiliary requests 1a and 2: no amendment;
- Auxiliary requests 1b and 2a: replacement of the term "fibrous polyolefin nonwoven web" by the term "fibrous polypropylene nonwoven web";
- Auxiliary requests 1c and 2b: the same amendments as in auxiliary request 1b plus replacement of the term "predominately linear polyolefin polymer" by "predominately linear low density polyethylene polymer";

- Auxiliary request 3: replacement of the lower limit "2" by the number "10" for specifying the minimum amount of the bonding agent;
- Auxiliary request 3a: the same amendments as in both auxiliary requests 1b and 3;
- Auxiliary request 3b: the same amendments as in both auxiliary requests 1c and 3;
- Auxiliary request 4: the same amendments as in auxiliary request 3 plus a replacement of the term "fibrous polyolefin nonwoven web" by the term "fibrous polypropylene spunbond nonwoven web";
- Auxiliary request 4a: the same amendments as in both auxiliary requests 1c and 4.

Claim 1 of auxiliary request 5 is the most restricted version and reads as follows:

"1. A breathable film/nonwoven laminate comprising:

a film (12) formed from a blend including, on a dry weight basis, based upon the total weight of the film, from about 15 to about 25 percent of a predominately linear low density polyethylene polymer, from about 30 to about 80 percent of a filler and from about 10 to about 20 percent of a bonding agent, said film having a water vapor transmission rate of at least 100 g/m²/24 hours and a fibrous polypropylene spunbond nonwoven web (14) bonded directly to said film to form a laminate,

said laminate having a peel strength of at least 24 grams."

The same amendments as specified for claims 1 above were made in other independent claims directed to a personal care absorbent article and an article of clothing, respectively of each auxiliary request (compare granted claims 9 and 10).

VII. Oral proceedings were held on 1 September 2004.

VIII. The appellant argued in substance as follows:

- (a) G 1/93 (OJ EPO 1994, 541) was applicable to the present case. According to G 1/93, features not providing a technical contribution to the claimed subject-matter of the invention but merely limiting the scope of protection were allowable under Article 123(2) EPC. A technical contribution did not mean any technical effect at all but an unwarranted advantage. Thus, it should be examined whether or not the objected feature provided a technical contribution.

- (b) The application as filed tried to overcome deficiencies associated with the thermal lamination of two different materials without using a separate heat seal layer. Thus, the technical problem was to provide a process for thermally bonding incompatible and compatible materials together so that the advantages of the two materials as well as the thermal lamination process could be used. It was important that the laminate provided sufficient comfort, strength,

breathability and liquid impermeability, which properties were necessary in personal care absorbent articles such as diapers. In that respect, although the bonding strength was important, it did not matter for the solution to the technical problem how strong the peel strength was, as long as the film and the web did not fall apart. Furthermore, since the parameter range given in the application as filed fully covered the claimed range, a technical contribution could only be that the amendment led to a selection invention.

However, under the circumstances of the present case, the selection of the sub-range did not fulfil the criteria for selection inventions as developed in established case law. In line with decision T 384/91 (OJ EPO, 1995, 745) the feature in question did not have any influence on the solution to the technical problem, but merely limited the protection conferred. In that respect the claimed peel strength and the peel strength of at least 5 grams had to be compared with each other. As regards values higher than 41 g, these laminates were so well bonded that they could not be separated. This did not mean that values higher than 41 were outside the claim.

- (c) In line with T 526/92 of 25 October 1994 (not published in OJ EPO), the amendment did not provide an unwarranted advantage to the patentee, since its position in relation to novelty and inventive step was not improved. In this respect, since the description mentioned equal preference

for low and high values, there was no technical contribution. Furthermore, the peel strength of house wraps as used in D3, considered as the closest prior art by the opposition division, was in any case stronger than that for a diaper so that the peel strength was completely irrelevant for assessing inventive step. Hence, the feature objected to merely limited the protection conferred by the patent as granted without providing a technical contribution to the claimed subject matter, which could be regarded as subject-matter extending beyond the content of the application as filed.

- (d) Only in the event that the feature objected to provided a technical contribution did the question arise as to whether or not the feature "at least 24 grams" had a basis in the application as filed. From the original documents it was apparent that the peel strength should be at least 5 g, which defined an open ended range. The exemplified films having a good adhesion showed a peel strength of 24, 26, 27 and 41 grams, thus including a value of 24 grams as preferred. Although in the examples linear low density polyethylene as polyolefin, CaCO_3 as filler and an amorphous ethylene propylene random copolymer as bonding agent were used, it was evident from the general description that also other materials were applicable to provide the desired peel strength. In accordance with T 201/83 (OJ EPO 1984, 481), such an amendment was allowable if other features of that sample were not closely linked to the peel strength. Thus, according to the description, the value objected

to could be detached from those other features and be generalized.

- (e) With respect to the auxiliary requests, the amendments brought the claimed features closer to the reality of the exemplified laminates having the claimed peel strength. Thus, the type of the nonwoven web, the predominantly linear polyolefin and its amount, and the amount of the bonding agent were specified in the different auxiliary requests. The specification of the exemplified filler and bonding agent was unnecessary, since the description provided enough information to use suitable other fillers and bonding agents which met the required peel strength.

IX. The arguments of the respondent can be summarized as follows:

- (a) The problem of the patent in suit related to the thermal bonding of incompatible and compatible materials in order to achieve a minimum bond strength of at least 5 grams between the two materials. The peel strength thus provided a technical contribution to the invention. The question, whether the amended range amounted to a selection invention or not was of minor importance, since G 1/93 (cited *supra*) only mentioned a selection invention as a typical example. More important was the question whether or not an unwarranted advantage had been achieved by the amendment. The contested feature having a relatively high minimum bond strength could be used to distinguish the claimed subject-matter

from other known laminates and improve the appellant's position in relation to novelty and inventive step over any future prior art. Thus, the amendment led to an unwarranted advantage so that a basis in the application was necessary for the amended feature.

- (b) Regarding Article 123(2) EPC, the peel strength of at least 24 grams of the claimed laminate had no basis in the application as filed. A bond strength of 24 grams was only mentioned in one specific sample without any preference in the general description for such a value, in particular as the lower end of an open ended range as claimed. Instead, lower values were preferred and disclosed for the same lamination process (Table III). Furthermore, values of higher than 41 grams could not be measured, since the specified test method could not be applied to such higher values. Hence, any value higher than 41 g was outside the claim.
- (c) There was a functional relationship between the bond strength of 24 grams in sample 1 and the other features of that sample, in particular the bonding agent based on a specific kind of ethylene propylene random copolymer and its amount. The contested feature was thus closely associated with those other features of the sample and clearly depended on the materials and their composition chosen for the film and for the non-woven web. Therefore, the bond strength was a feature which could not be detached from the other features in line with T 201/83 (cited *supra*). Therefore, the amendment was not allowable.

(d) As regards the auxiliary requests, they did not specify all the necessary features associated with the claimed peel strength either. In particular, in none of the claims was the type of bonding agent specified which was closely related to the claimed peel strength value. All examples which showed a peel strength higher than 24 grams used the specific trade products Himont KS051 and KS050 including a specific amorphous component acting as bonding agent. There was no disclosure in the application as filed that the claimed peel strength could be achieved by other bonding agents. There was no statement in the description that the bonding agent should not be closely associated to the peel strength.

X. The appellant requested that the decision under appeal be set aside and that the patent be maintained, unamended (main request) or, alternatively, on the basis of one of the twelve sets of claims identified as auxiliary requests 1a to 1c, 2, 2a, 2b, 3, 3a, 3b, 4, 4a and 5, all submitted with letter dated 30 July 2004. In case that none of the above requests should be considered allowable, it was requested that the patent be maintained in the version underlying the decision under appeal. Furthermore, he requested that the case not be remitted to the opposition division, if the main request or one of the auxiliary requests were considered allowable under Article 123(2) EPC.

XI. The respondent requested that the appeal be dismissed. Furthermore, he requested that all auxiliary requests filed with letter dated 30 July 2004 not be admitted

into the proceedings. Auxiliarily, he requested that the case be remitted to the opposition division.

Reasons for the Decision

1. The appeal is admissible.

Admissibility of auxiliary requests

2. The twelve auxiliary requests were filed on 30 July 2004 in reaction to the communication of the board preparing the oral proceedings. Since the oral proceedings were arranged for 1 September 2004, the requests were filed within the time limit of one month set in the above communication. The amendments to the claims only concern a more restricted definition of features and values, which are simple and clear enough to be readily understood by the skilled person. Whereas the amendments are filed in form of twelve auxiliary requests, only several amendments are involved which are presented in different, clearly structured combinations. Filing a number of auxiliary requests in appeal proceedings is not unusual, since it is the proprietor's last chance to get its patent maintained. Thus, the appellant's behaviour does not amount to any abuse of the proceedings. Hence, the amended claims meet the established criteria for taking amendments to claims into consideration (Case Law of the Boards of Appeal of the European Patent Office, 4th edition 2001, VII.D.14.2.1, see in particular T 51/90 and T 270/90).

Objection under Article 100(c) EPC (all requests)

3. The opposition division was of the opinion that the peel strength in granted claims 1, 9, 10, 14 and 15, namely "at least 24 grams", violated Article 123(2) EPC. That peel strength range is part of the main and of all auxiliary requests on file so that all requests concern the same issue and can be dealt with together. Thus, the question arises whether or not there is a basis in the application as originally filed for a peel strength "of at least 24 grams" to define the claimed laminate.

3.1 According to the application as filed, the peel strength of the laminate should be at least 5 grams (see page 6, lines 6 to 8; page 11, lines 17 and 18; independent claims 3, 11 and 12). Thus, the peel strength of the laminate has been defined by an open ended range as an essential feature of the invention. In the general description and the claims there is no further mention of any preferred peel strength range.

3.1.1 In the examples, different specific laminates have been prepared and the peel strength thereof has been measured (Examples 1 and 3; Tables I and III). In Example 1, three laminates (samples 1 to 3) have been produced from breathable films with varying polymer blends and a specific nonwoven web. In samples 1 to 3, the blends of the films contain 65% calcium carbonate, 15 to 25% linear low density polyethylene and 10 to 20% by weight of Himont KS051P, which is a polypropylene based polymer resin containing an amorphous ethylene propylene random copolymer as bonding agent (Table 1, page 24; page 22, lines 25 to 34; page 27, lines 19 to 24 and Table III). The blends are blown up to films above a specific melt temperature. The films are then stretched in machine direction under specific

conditions to provide a film having a basis weight of about 14 g/m² (page 23, lines 3 to 12). Thereafter the films are laminated to a polypropylene spunbond nonwoven web at a specific pressure and a specified bonding temperature (page 25, lines 17 to 25). The peel strength of the laminates has been measured according to the test method described on page 21, lines 21 to 39 to provide individual values of 24, 27 and 26 grams, respectively. All three samples of Example 1 are considered to be excellent in bond strength (page 25, lines 26 to 28).

3.1.2 Furthermore, in Example 3, laminates similar to those of Example 1 have been prepared by using breathable test films having a polymer blend composition similar to that of Example 1 except for using six other bonding agents in an amount of 5 and 15% by weight, respectively. Except for the bonding agent Himont KS050 (41 grams) all the other samples provide a much lower peel strength between 3 to 10 grams (Table III).

3.1.3 The examples of the application as filed only illustrate specific laminates which have been prepared from specific polymers blends and a specific nonwoven web by using specific lamination conditions and provide specific values of the peel strength. Thus, the exemplified laminates and the peel strength thereof are disclosed only in a concrete technical context, without providing any preference for a peel strength of at least 24 grams. Nor is any such preference given in the description, which could justify the lower limit.

3.2 Since however a peel strength of 24 grams is disclosed, the question arises under which conditions such an

exemplified feature can form the basis for a new range as claimed.

3.2.1 According the decision T 201/83 (cited *supra*), an amendment of a concentration range in a claim for a mixture, such as an alloy, is allowable on the basis of a particular value described in a specific example, provided the skilled man could have readily recognized this value as not so closely associated with the other particulars of the example as to determine the effect of that embodiment of the invention as a whole in a unique manner and to a significant degree (headnote). In that decision the board came to the conclusion that in the lead alloys under consideration there was only a loose connection between the particular calcium and magnesium contents with regard to the effect so that the expert would treat them as features of design that could be separately considered. Thus, since the original calcium range was disclosed to be 100 to 900 ppm, the exemplified calcium amount of 690 ppm could form the basis of the lower value of the claimed range of 690 to 900 (pt. 9 of the reasons).

3.2.2 The factual situation in T 201/83, which led to the decision to accept an exemplified lower value as the basis for an amended range, concerns a concentration range of a component in an alloy mixture, whilst in the present case the amendment relates to a property parameter connected with a technical effect of a laminate as a whole. Thus, the question arises whether or not that peel strength value is closely associated with the other features of that example so as to determine the effect thereof as a whole in a unique manner and to a significant degree.

3.2.3 In the examples of the application as filed, the exemplified peel strength is associated to a multiplicity of further features including the specific kind of bonding agent, the amount thereof, the exact nature of the film and nonwoven polymers and thermal and mechanical aspects of the process of bonding. It is specifically mentioned that with the increase in the bonding agent, the laminates show an increase in peel strength and thus are more resistant to delamination (page 25, lines 5 to 8). Furthermore, compared to sample 2 of Example 1, a simple replacement of Himont KS051 by another type of bonding agent Himont KS050 results in a much higher degree of peel strength (41 grams versus 26 grams), although the same amount of bonding agent and an identical film composition is used. That comparison shows that the type of bonding agent has a considerable effect on the peel strength of the laminate as a whole in a unique manner. This result is confirmed by Table III, which shows that even if the weight percentage of the film composition is held constant and only the type of the bonding agent is varied the peel strength may be doubled from 5 to 10 g depending of the type of bonding agent. Furthermore, in Example 3 most of the bonding agents appear to provide increased bonding as the bond temperature is increased (page 30, lines 5 to 9).

3.2.4 From these results the skilled person draws the conclusion that the peel strength of the exemplified laminates as a whole at least is associated with the amount of the bonding agent, the type of the bonding agent and the bonding temperature in a unique manner and to a significant degree (Tables I and III).

3.3 The appellant argued that the peel strength did not depend on the specific kind of bonding agent and that the claimed peel strength can also be achieved by other bonding agents specified in the description (page 11, line 19 to page 12, line 28).

3.3.1 A "bonding agent" as used in the application as filed means an additive which, when incorporated into the film polymer blend, will allow bonding of the film layer to the nonwoven layer at a temperature at least 5 °F lower than the melting point of the primary predominately linear thermoplastic polymer component in the film polymer blend - in this case, the "primary" polymer being the linear low density polyethylene. In addition, the bonding or peel strength of the resultant laminate should be at least 5 grams (page 11, lines 10 to 18).

3.3.2 Thus, there are two independent requirements which are associated with a suitable bonding agent of the invention, one of which is a minimum peel strength of 5 grams. The application as filed mentions a long list of suitable bonding agents (page 11, line 24 to page 12, line 28). There is no disclosure in the application as filed, which of the mentioned bonding agents are useful to provide a peel strength of at least 24 grams, which value is nearly 5 times higher than the disclosed lowest value of at least 5 grams. Indeed only two exemplified bonding agents (Himont KS050 and KS051) meet the claimed peel strength, whilst 5 other preferred bonding agents (see Table III) do not meet that requirement. Thus, the argument that the type of

bonding agent is not associated with the specific higher peel strength range is not convincing.

3.4 Although the appellant in its auxiliary requests has attempted by further restrictions to make the claims correspond more clearly to the exemplified laminates having a high peel strength, those auxiliary requests fail to define all the necessary particulars which are closely associated with the claimed peel strength (pt. 3.2.3 and 3.2.4 *supra*). Since, in particular, the type of bonding agent, being a key feature for providing the individual exemplified peel strength value, is not specified in claim 1 of any of the requests, the requirements of decision T 201/83 are not fulfilled for any of the requests (see, in particular, claim 1 of the most restricted Auxiliary Request 5). Consequently, the peel strength of 24 grams cannot be detached from the exemplified laminates to form a basis for a generalized lower limit of the claimed peel strength range without taking into consideration the other particulars closely associated therewith. It follows from the above that the claimed subject-matter in all requests cannot be directly and unambiguously derived from the application as filed.

3.4.1 In that respect, the question can be left unanswered which specific features other than the features mentioned above (pt. 3.2.3 and 3.2.4) which may also be associated to the peel strength would have to be incorporated into claim 1 as well, in order to meet the requirements of the established case law.

3.4.2 Hence, Claims 1 of the main and the twelve auxiliary requests are not based on the application as filed.

3.5 The appellant has relied upon decision G 1/93 (cited *supra*) and argued that the amendment merely excludes protection for part of the subject-matter of the claimed invention as covered by the application as filed, without providing any unwarranted advantage. Thus, the amendment, even without any basis, did not contravene Article 123(2) EPC.

3.5.1 According to G 1/93, a feature which has not been disclosed in the application as filed but which has been added to the application during examination but which, without providing a technical contribution to the subject-matter of the claimed invention, merely limits the protection conferred by the patent as granted by excluding protection for part of the subject-matter of the claimed invention as covered by the application as filed, is not to be considered as subject-matter which extends beyond the content of the application as filed within the meaning of Article 123(2) EPC. The ground for opposition under Article 100(c) EPC therefore does not prejudice the maintenance of a European patent which includes such a feature (headnote 2).

If such added feature, although limiting the scope of protection conferred by the patent, has to be considered as providing a technical contribution to the subject-matter of the claimed invention it would give an unwarranted advantage to the patentee contrary to the purpose of Article 123(2) EPC. Consequently, such feature would constitute added subject-matter within the meaning of that provision. A typical example of this seems to be the case where the limiting feature is

creating an inventive selection not disclosed in the application as filed or otherwise derivable therefrom (G 1/93, Reasons, pt. 16). A further example is where a greater distance from the state of the art is gained by the amendment (T 526/92, cited in Case Law, *supra*, III.A.1.1 and 1.2).

3.5.2 In G 1/03 (*supra*) reference is made to decision G 1/93 stating that therein a difference is made between features providing a technical contribution and features merely limiting the protection conferred by the patent by excluding protection for part of the subject-matter (G 1/03, Reasons, pt. 2 and 2.1.2). At least for an allowable disclaimer, this distinction has been confirmed in G 1/03. Since the appellant alleges that the contested feature does not make a technical contribution, it seems appropriate to examine this question.

3.5.3 In decision T 384/91 (cited *supra*) which specifically deals with the consequences of decision G 1/93, it was concluded that the exception provided for in the Enlarged Board's decision only relied on the technical relationship of the added feature with the content of the application as originally filed, as understood by the skilled reader (Reasons, pt. 5). According to T 384/91, a feature at least then goes beyond providing a mere limitation which does not involve a technical contribution to the invention if it interacts with the way in which the other features of the claim solve the technical problem, as understood from the application as originally filed (see Reasons, pt. 5). Thus, the question arises whether or not the added feature of "at

least 24 grams" interacts with the way the other features of the claim solve the technical problem.

- 3.5.4 According to the patent in suit, attempts have been made to combine films and fibrous nonwovens thereby making it possible to rely upon the strengths of one material to overcome the weaknesses of the other. An example of combining the best attributes of a breathable film and a fibrous nonwoven is via the combination of a filled linear polyolefin film and a polypropylene or polypropylene copolymer spunbond web. In order for these two materials to work in unison, they must somehow be joined or laminated together (page 2, lines 42 to 46). It is however more desirable to use thermal lamination techniques (page 2, lines 57 and 58).

Thermal lamination can be accomplished through the use of heat and pressure as with heated pattern rolls and with ultrasonics. Both techniques are very well suited for joining films and nonwovens when the two materials are made from the same polymer. In some cases, however, the polymers used to make the film are not the same as those used to make the fibrous nonwoven web. This can be because of both cost and physical properties. Linear low density polyethylene (LLDPE) films and polypropylene nonwoven webs are one example. These polymers are thermally incompatible with one another in that they cannot be thermally laminated to one another with a bond force of at least 5 grams.

There also exists the situation where the polymers used to make the two layers are the same and therefore compatible but to bring about thermal lamination so much heat and pressure must be used that perforations

end up being formed in the film layer and oftentimes the laminate is too stiff (page 3, lines 1 to 9). As a result, there is a need for a process for thermally bonding such incompatible and compatible materials so that the advantages of the two materials as well as the thermal lamination process can be used. There is also a need for the resultant product (page 3, lines 18 to 21).

3.5.5 From the patent in suit it is immediately apparent that the problem to be solved is directed to thermally bonding such incompatible and compatible material described above so that *inter alia* a minimum bond strength (at least 5 grams) between the two materials is obtained. Consequently, the problem of the invention is specifically related to a minimum sufficient bond strength between the two materials.

3.5.6 The appellant argued that the problems underlying the invention were only related to keep the advantages of the two materials in areas where strength, comfort breathability and liquid impermeability were needed. These arguments overlook that keeping the advantageous properties of the two materials is only one aspect of the problem and that the lamination process for providing sufficient peel strength is another equally important aspect of the problem underlying the invention.

3.5.7 The solution to that lamination problem according to claim 1 of the patent in suit requires at least 24 grams load to delaminate the two layers from each other so that the technical problem and its solution are closely interrelated to each other. Furthermore, claim 1 is defined by other features *inter alia* "that

the film (12) is formed from a blend, on a dry weight basis, based upon the total weight of the film, from about 10 to about 68 percent of a predominately linear polyolefin polymer, from about 30 to about 80 percent of a filler and from about 2 to about 20 percent of a bonding agent". The peel strength of at least 24 grams interacts with the way in which those other features of the claim solve the technical problem, namely to provide laminates having a sufficiently high peel strength, since the type of bonding agent and the amount thereof are closely associated with the peel strength as explained under point 2.1 above. Thus, the amended feature involves an interaction with the other features, i.e. a technical contribution to the invention and does not provide a mere limitation of scope. Since that amendment is present in identical form in all requests, the above conclusion applies to all auxiliary requests on file.

- 3.6 Furthermore, by increasing the limit of the peel strength from "at least 5 grams" to "at least 24 grams", the applicant has moved further away from the prior art, i.e. has improved its position in relation to the state of the art (compare G 1/93, Reasons, pt. 9), since prior art laminates which have a peel strength below 24 grams but are otherwise identical would not be novelty destroying and might not be relevant for inventive step. Furthermore, the technical problem of the invention could be formulated in a more ambitious way, if for example an improvement in peel strength over a prior art laminate could be shown, by which the appellant's position in relation to inventive step was improved.

3.6.1 The appellant argued that the peel strength of house wraps according to D3 is much higher than that of the claimed laminates used for personal care absorbent articles so that the limitation cannot provide an unwarranted advantage.

3.6.2 However, according to T 526/92 (cited *supra*) an unwarranted advantage is already achieved if the amendment would facilitate the defence of the patent in suit in possible future invalidity proceedings (pt. 6.3 of the Reasons). Thus, such an unwarranted advantage is not only assessed with respect to an already known state of the art which has been used in opposition proceedings, but is already given, if the limitation provides a potential distance from a state of the art not yet detected.

3.7 Finally, the appellant argued that according to G 1/93 such technical contribution is only provided if the limiting features are creating an inventive selection.

However, according to decision G 1/93 such a selection invention is only mentioned as a "typical example" (see pt. 16 of the reasons) and thus has only illustrative character. Hence, the arguments of the appellant to show that the claimed limitation does not lead to an inventive selection cannot prove that the requirements of decision G 1/93 have been met. On the contrary, the general criteria of that decision have to be met, namely that the limitation does not involve a technical contribution to the subject-matter of the claimed invention and does not provide an unwarranted advantage. Since the claimed peel strength leads to a technical contribution of the claimed subject-matter (above

pt. 3.6), the question whether or not the limiting feature creates an inventive selection can be left unanswered.

3.8 Consequently, the added feature cannot be regarded as a mere limitation of the protection.

3.9 From the above it follows that the main request and the twelve auxiliary requests which all have the same deficiency, do not fulfil the requirements of Article 123(2) EPC.

3.10 The further amendments in the twelve auxiliary requests are not sufficient to remedy the deficiency, since all claims 1 do not meet the requirements of the established case law (T 201/83, Reasons, pt. 2.2.3 and 3.4 above; G 1/93, Reasons, pt. 3.5.7 above).

4. Since the patent in suit amended according to the sole auxiliary request in the version underlying the decision under appeal has been found by the opposition division to meet the requirements of the EPC, and since the patentee is the sole appellant, neither the board nor the non-appealing opponent can challenge the maintenance of the patent as thus amended ("prohibition of reformatio in peius", G 9/92 and G 4/93, cited in Case Law, *supra*, VII.D.6.1).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman

C. Eickhoff

R. Teschemacher