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Datasheet for the decision of 25 February 2016

Case Number: T 2228/12 - 3.2.06

Application Number: 00972346.1

Publication Number: 1237518

IPC: A61F13/15, B32B5/02, B32B5/26, D04H13/00

Language of the proceedings: EN

Title of invention:
DISPOSABLE GARMENT AND ELASTIC LAMINATE EMPLOYING NONWOVEN FORMED BY BI-COMPONENT FIBERS OF ETHYLENE-PROPYLENE RANDOM COPOLYMER

Patent Proprietor:
THE PROCTER & GAMBLE COMPANY

Opponent:
SCA Hygiene Products AB

Headword:

Relevant legal provisions:
EPC 1973 Art. 83, 100(b), 84
EPC Art. 123(2)
RPBA Art. 12(4), 13(1)

Keyword:
Sufficiency of disclosure - main request (no)
Late-filed auxiliary requests - admitted
(no) prima facie not allowable

Decisions cited:

Catchword:

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European Patent Office
Office européen des brevets

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Case Number: T 2228/12 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 25 February 2016

Appellant: (Opponent)	SCA Hygiene Products AB 405 03 Göteborg (SE)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Respondent: (Patent Proprietor)	THE PROCTER & GAMBLE COMPANY One Procter & Gamble Plaza Cincinnati, OH 45202 (US)
Representative:	Gillard, Richard Edward Elkington and Fife LLP Thavies Inn House 3-4 Holborn Circus London EC1N 2HA (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 16 August 2012 rejecting the opposition filed against European patent No. 1237518 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman M. Harrison
Members: M. Hannam
E. Kossonakou

Summary of Facts and Submissions

I. An appeal was filed by the appellant (opponent) against the decision of the opposition division rejecting the opposition to European patent No. 1 237 518. It requested that the decision be set aside and the patent be revoked.

II. In its letter of response, the respondent (proprietor) requested that the appeal be dismissed.

III. The Board issued a summons to oral proceedings including a communication containing its provisional opinion, in which it indicated *inter alia* that the ground for opposition under Article 100(b) EPC appeared to be prejudicial to the maintenance of the patent. In particular, the Board stated that, based on the evidence before it, the onus was now on the proprietor to prove that the invention could be carried out over its whole scope.

IV. With letter of 25 January 2016 the respondent filed auxiliary requests 1 to 3.

V. With fax of 23 February 2016 the appellant filed a table of catalyst comparison data.

VI. Oral proceedings were held before the Board on 25 February 2016.

The appellant requested that the decision under appeal be set aside and that the European patent No. 1 237 518 be revoked.

The respondent requested that the appeal be dismissed as its main request or that the patent be maintained on the

basis of the claims of any of auxiliary requests 1 to 3 filed with its submissions of 25 January 2016.

VII. Claim 1 of the main request reads as follows:

"A disposable garment (20) having a front region (26), a back region (28) and a crotch region (30) between the front region and the back region, comprising: a chassis (41) provided in the front, back and crotch regions (26, 28, 30); one pair of front ear panels (46) extending laterally outward from the chassis (41) in the front region (26); and one pair of back ear panels (48) extending laterally outward from the chassis (41) in the back region;

each of the ear panels (46, 48) including a first nonwoven layer and a second nonwoven layer;

one of the first and second nonwoven layers is a nonwoven layer including bi-component fibers having a sheath/core structure, the sheath containing an ethylene-propylene random copolymer which contains from 7 mol% to 15 mol% of ethylene comonomer randomly distributed in the polymer backbone, the ethylene-propylene random copolymer having a PEP Ratio of from 50 mol% to 100 mol%;

wherein PEP Ratio refers to the monomer sequence units of propylene-ethylene-propylene among the ethylene-centered triads which are contained in an ethylene-propylene random copolymer and wherein triad refers to a monomer sequence unit including three monomers sequentially bonded in the polymer backbone of a polymer,

the disposable pull-on garment (20) further comprising seams (32) each joining the corresponding front and back ear panels (46, 48) to form two leg openings (34) and a waist opening (36)."

Claim 1 of auxiliary request 1 reads as for claim 1 of

the main request save for the range of the PEP ratio being amended to read "from 50 mol% to 80 mol%".

Claim 1 of auxiliary request 2 reads as for claim 1 of the main request save for the range of the PEP ratio being amended to read "from 60 mol% to 80 mol%".

Claim 1 of auxiliary request 3 reads as for claim 1 of the main request save for the range of the PEP ratio being deleted and substituted with the single value of "about 70 mol%".

VIII. The appellant's arguments may be summarised as follows:
Concerning Article 100(b) EPC, statistical calculation showed that the PEP ratio for random distribution at 7 mol% ethylene was 86.49%, i.e. considerably less than the claimed maximum of 100 mol%. The patent gave the skilled person no guidance as to how to achieve the claimed PEP ratio of up to 100 mol%. Particularly no evidence had been presented by the respondent that catalysts exhibiting a degree of selectivity high enough to achieve a PEP ratio of 100 mol% were available. Furthermore, the claimed PEP ratio range also had to be achievable across the full claimed range of ethylene mol%, for which at 15 mol% ethylene achieving a PEP ratio of 100 mol% was even less plausible. From the table of catalyst comparison data it was also clear that measured PEP ratios were uniformly significantly lower than the statistical PEP ratios, the claimed range up to 100 mol% thus evidently requiring optimised catalysts which were not disclosed in the patent.

Auxiliary request 1 could have been filed before the opposition division and thus should not be admitted by the Board when using its discretion under Article 12(4) RPBA. As regards auxiliary requests 1 and 2, there was

no evidence on file regarding which catalyst and reaction conditions would enable the claimed PEP ratios to be achieved.
Regarding auxiliary request 3, there was a technical interdependence between the two claimed variables such that they could not be independently changed in claim 1 without offending Article 123(2) EPC. The parameter 'about 70 mol%' also lacked clarity.

IX. The respondent's arguments may be summarised as follows:
Regarding the main request, highly selective catalysts were available which would enable PEP ratios of around 99.5% to be achieved, for the skilled person this being essentially 100%. The amount of ethylene in the comonomer mix was critical in influencing how the polymer grew, purely statistically a lower ethylene mol% resulting in a higher PEP ratio in the polymer; the selection of an appropriate catalyst from look-up tables would then allow the desired PEP ratio to be achieved, in particular PEP ratios of up to around 99.5%. The skilled person would understand that the claimed ranges of 7 to 15 mol% ethylene and 50 to 100 mol% PEP were co-dependent such that no need existed for the claim to be enabled across both ranges. Even so, at 15 mol% ethylene over 70 mol% PEP was statistically achievable which could be pushed towards 100 mol% with appropriate selection of a catalyst. The burden of proof should lie with the appellant to demonstrate that the claimed PEP ratio could not be achieved.
As regards admittance of auxiliary request 1, statistical PEP ratios of 72.3 mol% at 15 mol% ethylene and 83.75 mol% at 8.5 mol% ethylene were known and therefore an actual PEP ratio of 80 mol% was not far removed from these. It was thus reasonable that at 15 mol% ethylene a selective catalyst could achieve a PEP ratio of 80 mol%. This request was also filed

immediately on receiving the negative opinion of the Board and should thus be admitted. It had not been necessary to file the request before the opposition division since it had found the ground for opposition under Article 100(b) EPC not to prejudice maintenance of the patent. Furthermore, it had been shown in the table of catalyst comparison data that far higher ratios than statistically calculated would be achieved.
The subject-matter of claim 1 of auxiliary request 3 was clear and did not extend beyond the content of the application as filed. The ethylene mol% and PEP ratio mol% were disclosed in separate paragraphs of the description without a link such that it was acceptable to amend one in the claim without changing the other. The disclosures were not two separate lists from which a selection had been made, rather the broadest disclosure from one had been combined with the most preferred disclosure of the other.

Reasons for the Decision

1. Main request

1.1 Article 100(b) EPC 1973

The ground for opposition under Article 100(b) EPC 1973 is prejudicial to the maintenance of the patent as granted.

1.2 The patent fails to disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. Specifically the skilled person is unable, using the teaching of the patent and considering his general knowledge, to produce a nonwoven layer including bicomponent fibres of a sheath/core

structure, in which the sheath contains an ethylene-propylene random copolymer containing 7 to 15 mol% of ethylene and in which the copolymer has a PEP ratio of from 50 to 100 mol%.

1.3 The patent discloses only one way of achieving the claimed PEP ratio, namely the use of Daiwabo NBF (P-2) fibres in which the ethylene-propylene random copolymer forming the sheath contains 8.5 mol% of ethylene comonomer and has a PEP ratio of 70 mol% (see para. [0044] of the patent). This single disclosure however does not enable the skilled person to perform the invention over the whole claimed range of 50 to 100 mol% PEP ratio. Indeed statistical calculation shows that the PEP ratio for random distribution at 7 mol% ethylene is 86.49% i.e. considerably less than the claimed maximum of 100 mol%. The file shows a complete lack of evidence regarding what catalysts and reaction conditions could be employed to achieve the claimed range of mol% PEP ratio. This is the case despite the Board having indicated in its preliminary opinion that such evidence regarding catalysts was lacking, thus effectively shifting the onus to the respondent to show that the invention can be carried out by the skilled person.

1.4 The respondent's argument that highly selective catalysts were known in the art and that look-up tables would allow an appropriate catalyst to be chosen was not supported by any evidence on file. This was the case despite a PEP ratio of 100 mol% requiring a catalyst of extreme selectivity and the Board having specifically indicated in its preliminary opinion that such evidence regarding catalysts was lacking. In this respect, it is also noted that the measured PEP ratio in various samples referenced in the respondent's letter of 24 April 2015 was consistently lower than the

statistically achievable PEP ratio, thus further supporting the view that PEP ratios approaching 100 mol% are not readily achievable without further guidance.

1.5 It was accepted by the Board that the upper limit of the 50 to 100 mol% PEP ratio would be understood by the skilled person to be 'practically' 100%. Even so, this still did not enable the skilled person to carry out the invention as absolutely no evidence had been presented corroborating the respondent's argument that highly selective catalysts able to achieve such high PEP ratios (i.e. ratios of around 99.5%) were at all available.

1.6 The respondent held that the amount of ethylene in the comonomer mix was critical in influencing how the polymer grew, purely statistically a lower ethylene mol% resulting in a higher PEP ratio in the polymer. This is also borne out by the calculations provided by the appellant on page 5 of its letter of grounds of appeal. Furthermore, from the table of catalyst comparison data appended to the appellant's letter of 23 February 2016 it is apparent that the lower the ethylene mol% in the random copolymer the less the achieved PEP ratio differs from the statistical PEP ratio. This observation provides further support that, starting from the sole disclosed fibre in the patent, Daiwobo NBF (P-2), with a statistical PEP ratio of 83.75 mol% and an ethylene mol% of just 8.5, it is not a straightforward matter to achieve an actual PEP ratio of approaching 100%. The lack of any indication provided by the respondent of what catalyst and reaction conditions to use in order to achieve this thus prohibits the skilled person from being able to carry out the invention across the whole of the claimed range of 50 to 100 mol% PEP ratio.

1.7 The respondent's argument that the claimed ranges of 7 to 15 mol% ethylene and 50 to 100 mol% PEP ratio were co-dependent, in the sense that amounts around 7 mol% would be the amount of ethylene comonomer which should be used for high PEP ratios, such that no need existed for the claim to be enabled across both ranges is not accepted. Nothing in the claim gives any indication that there is any such relationship between the 7 mol% ethylene and the 100 mol% PEP ratio on the one side and the 15 mol% ethylene and the 50 mol% PEP ratio on the other. The claim is so drafted that the skilled reader would see no such limited interpretation. Indeed, the claim indicates simply that for the 7 to 15 mol% of ethylene comonomer in the polymer backbone, the PEP ratio is from 50 to 100 mol%; the skilled person must be able to carry out the invention across both these ranges which, as indicated in points 1.3 to 1.6 above, has not been proven possible with any evidence whatsoever by the respondent and, based on the evidence on file, also appears technically implausible.

1.8 The patent thus fails to disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, such that the ground for opposition under Article 100(b) EPC 1973 is prejudicial to the maintenance of the patent as granted. The main request is thus not allowable.

2. Auxiliary request 1

2.1 Non-admittance (Article 13(1) RPBA)

In appeal proceedings, the Rules of Procedure of the Boards of Appeal (RPBA) apply. Article 12(2) RPBA specifies that the statement of grounds of appeal and reply must contain the party's complete case. After

filing the grounds of appeal or reply, any amendment to a party's case may be admitted and considered at the Board's discretion, which is set out in Article 13(1) RPBA, such discretion being exercised *inter alia* in view of the need for procedural economy. As is established case law of the Boards of Appeal, such procedural economy implies that amended requests should at least be *prima facie* allowable in order to be admitted.

2.2 The respondent filed auxiliary request 1 in response to the preliminary opinion of the Board. It had not been necessary for the respondent to file this request before the opposition division since it had found the ground for opposition under Article 100(b) EPC 1973 not to prejudice the maintenance of the patent. The request nonetheless represents a change to the respondent's complete case (as defined in Article 12(2) RPBA) and its admittance is to be considered at the Board's discretion under Article 13(1) RPBA.

2.3 In claim 1 of the present request, the amendment concerns the PEP ratio range being limited to 50 to 80 mol%. Despite this being a reduced range relative to the main request, there is still absolutely no evidence on file to support this PEP ratio mol% being achievable by the skilled person. Despite, as argued by the respondent, statistical PEP ratios of 72.3 and 83.75 mol% being possible and therefore a PEP ratio of 80 mol% not being far removed from these, there was no evidence on file to corroborate the view that such ratios were indeed achievable, for example through details of the catalyst to use and the necessary reaction conditions or otherwise, remembering again that such ratios would be particularly problematic when using 15 mol% of ethylene comonomer.

2.4 The respondent's reference to the table of catalyst comparison data also did not help in this respect. The ethylene mol% in the polymer backbone of the examples cited in the table include just one falling within the claimed 5 to 15 mol% range, i.e. that of Daiwobo NBF (P2). For this example the measured PEP ratio of 70 mol% is 16% below the statistical expectation of 83.75%, thus failing to provide any evidence that the claimed PEP ratio of up to 80 mol% was achievable. The table furthermore seems to indicate that the lower the ethylene mol% the less percentage-wise the measured PEP ratio exceeds the statistical PEP ratio, indeed for the Daiwobo NBF (P2) example the measured being less than the statistical PEP ratio. The table thus provides no evidence that the claimed PEP ratio of 50 to 80% is achievable.

2.5 This request represents a change to the respondent's case and the request should thus at least *prima facie* overcome the objections to the main request in order to be admitted, otherwise at least procedural economy mentioned in Article 13(1) RPBA would not be satisfied. This requirement is clearly not met by the present request, with considerable doubt still being attached to such PEP ratios being achievable. The subject-matter of claim 1 thus at least *prima facie* fails to meet the requirement of Article 83 EPC 1973.

2.6 The respondent's argument that it had been surprised by the preliminary opinion of the Board and that this request was filed immediately in response, is not persuasive for the request to be admitted. Irrespective of the reasons for a party changing its case, requests filed at a late stage in the proceedings should at least *prima facie* overcome the previous objections prejudicing the higher ranking requests, and not introduce any new

objections, in order to be admitted. The overcoming of previous objections, as shown in points 2.3 to 2.4 above, has clearly not been achieved in the present request.

2.7 The subject-matter of claim 1 of auxiliary request 1 is thus at least not *prima facie* allowable, which would be necessary for fulfilling the need for procedural economy and consequently admitting the request into the proceedings. Accordingly, the Board exercised its discretion under Article 13(1) RPBA not to admit this request.

3. Auxiliary request 2

3.1 Non-admittance (Article 13(1) RPBA)

In claim 1 of this request, the amendment concerns the PEP ratio range being limited to 60 to 80 mol%. As found for claim 1 of auxiliary request 1 in point 2.3 to 2.4 above, also for the PEP ratio range of this request, particularly at 80% and a high ethylene mol% there is no evidence on file to support this PEP ratio mol% being achievable by the skilled person. The respondent also elected to submit no arguments in addition to those already presented for auxiliary request 1 in defence of the present request. *Prima facie,* therefore, the requirement of Article 83 EPC 1973 is not met in this request. The Board accordingly exercised its discretion under Article 13(1) RPBA not to admit this request.

4. Auxiliary request 3

4.1 Article 84 EPC 1973, Article 123(2) EPC

The subject-matter of claim 1 fails at least *prima facie*

to meet the requirement of clarity and additionally at least *prima facie* extends beyond the content of the application as filed.

4.2 In claim 1, the PEP ratio has been limited to a single value of 'about 70 mol%', the ethylene mol% range having been left unaltered with respect to the previous requests.

4.2.1 As regards the inclusion of the word 'about', this introduces a lack of clarity as to exactly what value of the PEP ratio is being claimed. The respondent's contention that a PEP ratio of exactly 70 mol% (rather than about 70 mol%) was too restrictive and was thus of no interest is not persuasive. Although the Board can accept the respondent's argument that the precise scope of the term 'about' might sometimes be an issue for national courts in the case of litigation, this does not alter the fact that before the EPO the claims must be clear in order to satisfy Article 84 EPC 1973, and the inclusion of the word 'about' makes this parameter imprecise and thus lacking in clarity.

4.2.2 There is also at least *prima facie* no direct and unambiguous disclosure in the application as filed of a combination of the claimed ethylene mol% in the polymer backbone and the claimed PEP ratio of about 70 mol%. In this respect, page 6, lines 28 to 34 of the PCT publication (which corresponds to the application as filed) discloses from about 7 mol% to about 15 mol% of ethylene comonomer randomly distributed in the polymer backbone; in a subsequent paragraph on page 7, lines 9 to 12, a PEP ratio of about 70 mol% is disclosed. Despite these features being disclosed in stand-alone paragraphs, it is clear to the skilled person that the ethylene mol% and the PEP ratio are not technically

independent, one variable very evidently having an influence on the other - indeed this was also confirmed by the respondent in the discussion of Article 100(b) EPC 1973 objections (see point 1.7 above). The selection of the PEP ratio of about 70 mol% in claim 1 without consideration of commensurate ethylene content in the polymer backbone thus would contravene Article 123(2) EPC.

4.2.3 The respondent's argument that it was acceptable to select the broadest disclosure from one variable with the most preferred of another did not convince. With respect to Article 123(2) EPC the accepted standard according to established case law of the Boards of Appeal is for there to be a direct and unambiguous disclosure of the claimed subject-matter in the application as filed. As regards the two paragraphs of the description disclosing the ranges of ethylene mol% in one and the PEP ratio mol% in the other, no link whatsoever can be found between the selected 7 to 15 mol% of ethylene and the PEP ratio of 70 mol% included in claim 1. The inclusion in claim 1 of these two features in combination thus presents the skilled person with new information which could not have been directly and unambiguously derived from the application as originally filed. Whilst the skilled person does appreciate, as mentioned in point 4.2.2 above, the presence of a link between the ethylene mol% and the PEP ratio, nothing in the originally filed application links these two parameters in the combination as claimed in the present claim 1.

4.3 With the subject-matter of claim 1 at least *prima facie* failing to meet the requirements of both Article 84 EPC 1973 and that of Article 123(2) EPC, the Board exercised its discretion not to admit auxiliary request 3 into the

proceedings (Article 13(1) RPBA).

5. The respondent had no further requests.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

M. H. A. Patin M. Harrison

Decision electronically authenticated