Internal distribution code:
(A) [ - ] Publication in OJ
(B) [ - ] To Chairmen and Members
(C) [ - ] To Chairmen
(D) [ X ] No distribution

Datasheet for the decision
of 15 November 2017

Case Number: T 1356/16 - 3.2.04
Application Number: 09168879.6
Publication Number: 2127543
IPC: A24D1/02
Language of the proceedings: EN

Title of invention:
Process for producing paper wrappers and smoking articles with reduced ignition proclivity characteristics

Patent Proprietor:
Schweitzer-Mauduit International

Opponents:
Miquel y Costas & Miquel, S.A.
PAPIERIES DU LEMAN
Julius Glatz GmbH

Headword:

Relevant legal provisions:
EPC Art. 56, 76(1), 84
RPBA Art. 13(1), 13(3)
Keyword:
Inventive step - obvious alternative
Divisional application - added subject-matter (yes)
Late-filed argument - amendments after arrangement of oral proceedings

Decisions cited:
T 0691/15

Catchword:
Case Number: T 1356/16 - 3.2.04

DECISION
of Technical Board of Appeal 3.2.04
of 15 November 2017

Appellant:  
Schweitzer-Mauduit International  
100 North Point Center East,  
Suite 600  
Alpharetta, GA 30022 (US)
(Patent Proprietor)

Representative:  
Grosch, Marcus  
Quinn Emanuel Urquhart & Sullivan, LLP  
Mollstrasse 42  
68165 Mannheim (DE)

Appellant:  
Miquel y Costas & Miquel, S.A.  
Tuset, 10  
08006 Barcelona (ES)
(Opponent 1)

Representative:  
Cueto, Sénida  
C/ Los Madroños 23  
Velilla de San Antonio  
28891 Madrid (ES)

Appellant:  
PAPETERIES DU LEMAN  
1080 rue des Vignes Rouges  
Amphion-les-Bains  
74500 Publier (FR)
(Opponent 2)

Representative:  
Regimbeau  
20, rue de Chazelles  
75847 Paris Cedex 17 (FR)

Appellant:  
Julius Glatz GmbH  
Staatsstrasse 37-41  
67468 Neidenfels (DE)
(Opponent 3)

Representative:  
Schön, Christoph  
Dr. Schön, Neymeyr & Partner mbB
Bavariaring 26
80336 München (DE)


Composition of the Board:
Chairman: A. de Vries
Members: S. Oechsner de Coninck
T. Bokor
Summary of Facts and Submissions

I. The opponents 1,2 and 3 and the patentee all appeal against the opposition division's decision dated 11 April 2016 to maintain the European patent No. 2 127 543 in amended form. The patentee filed a notice of appeal on 7 June 2016, paid the appeal fee the next day and filed the statement of grounds on 11 August 2016. The opponents I, II and III filed a notice of appeal on the 6th, 16th and 21st June 2016 respectively, paying the appeal fee on the same respective date, and filed the statement of grounds on the 9th, 19th and 22nd August 2016 respectively.

II. The opposition was based on the grounds of Articles 100(b) and c) EPC and Art 100(a) EPC in combination with lack of novelty and inventive step. In its written decision the Opposition Division held that the patent as amended according to auxiliary request 1 complied with the requirements of the EPC, having regard in particular to the following documents that also played a role in the present proceedings:

E3: US 5,878,754
E12: US 5,878,753
E27: WO 02/37991 (published parent application)
E39: US 4,146,040
E41: US 4,187,862

III. The Appellant-Proprietor requests that the decision under appeal be set aside and the patent be maintained in an amended form on the basis of any of the Main or First to Fifth Auxiliary Requests, of which the Main and First to Fourth Auxiliary Requests were filed with letter dated 28 February 2017, while the Fifth
Auxiliary Request was filed with letter dated 2 November 2017.

- The Appellant-Opponents 1 to 3 request that the decision under appeal be set aside, and that the European patent be revoked.

IV. The wording of claim 1 of the requests is as follows (in the auxiliary requests amendments vis-a-vis the main request are underlined):

Main request

"A process for producing a paper wrapper (14) having reduced ignition proclivity characteristics when incorporated into a smoking article (10) comprising the following steps:

a paper wrapper (14) comprised of a paper web;
applying multiple layers (31, 33, 35) of a film-forming composition to said paper wrapper (14) at particular locations, said multiple layers (31, 33, 35) of said film forming composition forming treated discrete areas (18) on said wrapper (14), said discrete areas (18) separated by untreated areas (28), said treated discrete areas (18) having a permeability within a predetermined range sufficient to reduce ignition proclivity, said treated areas (18) reducing ignition proclivity by reducing oxygen to a smoldering coal of said smoking article (10) as the coal burns and advances into said treated areas (18),

characterized in that said paper wrapper (14) is dried after application of each of said layers (31, 33, 35)."
First auxiliary request

A process for producing a paper wrapper (14) having reduced ignition proclivity characteristics when incorporated into a smoking article (10) comprising the following steps:

a paper wrapper (14) comprised of a paper web;

applying multiple layers (31, 33, 35) of a film-forming composition to said paper wrapper (14) at particular locations, said multiple layers (31, 33, 35) of said film-forming composition forming treated discrete areas (18) on said wrapper (14), said discrete areas (18) separated by untreated areas (28), said treated discrete areas (18) having a permeability within a predetermined range sufficient to reduce ignition proclivity, said treated areas (18) reducing ignition proclivity by reducing oxygen to a smoldering coal of said smoking article (10) as the coal burns and advances into said treated areas (18),

characterized in that said paper wrapper (14) is dried after application of each of said layers (31, 33, 35), said treated areas (18) comprise a plurality of discrete circumferential bands (24) disposed longitudinally along said smoking article (10), said bands (24) have a width of greater than about 4 mm and said paper wrapper (14) has a permeability of less than about 25 Coresta within the treated areas (18).

Second auxiliary request

A process for producing a paper wrapper (14) having reduced ignition proclivity characteristics when incorporated into a smoking article (10) comprising the following steps:

a paper wrapper (14) comprised of a paper web;

applying multiple layers (31, 33, 35) of a film-forming composition to said paper wrapper (14) at particular locations, said multiple layers (31, 33, 35) of said film-forming composition forming treated discrete areas (18) on said wrapper (14), said discrete areas (18) separated by untreated areas (28), said treated discrete areas (18) having a permeability within a predetermined range sufficient to reduce ignition proclivity, said treated areas (18) reducing ignition proclivity by reducing oxygen to a smoldering coal of said smoking article (10) as the coal burns and advances into said treated areas (18),

characterized in that said paper wrapper (14) is dried after application of each of said layers (31, 33, 35), said treated areas (18) comprise a plurality of discrete circumferential bands (24) disposed longitudinally along said smoking article (10) and said paper wrapper has a permeability of greater than about 60 Coresta.

Third auxiliary request
A process for producing a paper wrapper (14) having reduced ignition proclivity characteristics when incorporated into a smoking article (10) comprising the following steps:

a paper wrapper (14) comprised of a paper web;

applying multiple layers (31, 33, 35) of a film-forming composition to said paper wrapper (14) at particular locations, said multiple layers (31, 33, 35) of said film-forming composition forming treated discrete areas (18) on said wrapper (14), said discrete areas (18) separated by untreated areas (28), said treated discrete areas (18) having a permeability within a predetermined range sufficient to reduce ignition proclivity, said treated areas (18) reducing ignition proclivity by reducing oxygen to a smoldering coal of said smoking article (10) as the coal burns and advances into said treated areas (18),

characterized in that said paper wrapper (14) is dried after application of each of said layers (31, 33, 35), said treated areas (18) comprise a plurality of discrete circumferential bands (24) disposed longitudinally along said smoking article (10) and said paper web has a permeability of from about 60 Coresta to about 110 Coresta.

Fourth auxiliary request

A process for producing a paper wrapper (14) having reduced ignition proclivity characteristics when incorporated into a smoking article (10) comprising the following steps:

a paper wrapper (14) comprised of a paper web;

applying multiple layers (31, 33, 35) of a film-forming composition to said paper wrapper (14) at particular locations, said multiple layers (31, 33, 35) of said film-forming composition forming treated discrete areas (18) on said wrapper (14), said discrete areas (18) separated by untreated areas (28), said treated discrete areas (18) having a permeability within a predetermined range sufficient to reduce ignition proclivity, said treated areas (18) reducing ignition proclivity by reducing oxygen to a smoldering coal of said smoking article (10) as the coal burns and advances into said treated areas (18),

characterized in that said paper wrapper (14) is dried after application of each of said layers (31, 33, 35), said treated areas (18) comprise a plurality of discrete circumferential bands (24) disposed longitudinally along said smoking article (10), have a permeability of less than about 20 Coresta and a Burn Mode Index of less than about 8 cm⁻¹, and said paper web has a permeability of from about 60 Coresta to about 110 Coresta.

Fifth auxiliary request
A process for producing a paper wrapper (14) having reduced ignition proclivity characteristics when incorporated into a smoking article (10) comprising the following steps:

a paper wrapper (14) comprised of a paper web;

applying multiple layers (31, 33, 35) of a film-forming composition to said paper wrapper (14) at particular locations, said multiple layers (31, 33, 35) of said film-forming composition forming treated discrete areas (18) on said wrapper (14), said discrete areas (18) separated by untreated areas (28), said treated discrete areas (18) having a permeability within a predetermined range sufficient to reduce ignition proclivity, said treated areas (18) reducing ignition proclivity by reducing oxygen to a smoldering coal of said smoking article (10) as the coal burns and advances into said treated areas (18),

characterized in that said paper wrapper (14) is dried after application of each of said layers (31, 33, 35), and said paper web has a permeability of from about 60 to about 90 Coresta.

V. The Appellant-Proprietor argues as follows:
- Starting from E3 or E12 the objective problem to be solved is to improve appearance of a low ignition proclivity paper. E3 and E12 teach away because they provide a solution to this problem using a non-aqueous solvent that does have a significant effect on the appearance, furthermore all the examples teach specifically not to dry between each application of the composition. The skilled person would not obviously foresee intermediate drying as it represent a complication linked with additional costs and complexity.
- With respect to the question of extension of subject-matter for the first to fourth auxiliary requests, especially the second and third auxiliary requests contain a claim 1 substantially different from the one that decision T0691/15 found unallowable, and define the permeability of the base paper that applies to all embodiments.
- Admission of auxiliary request 5 is requested, the reasons for the late submission are to take into
account the preliminary opinion of the Board, and the request raises no new or unexpected issues, and it is also prima facie allowable.

VI. The Appellant-Opponents 1 to 3 argue as follows:
- The patent does not give any particular additional advantage supported by comparative tests on the provision of an additional drying step after each application of layer. Starting from E3 or E12 the objective technical problem is merely to find an alternative process of producing a paper wrapper. Intermediate drying is a common measure that is indicated in E3 and E12, as well as in other citations e.g. E41. It therefore represents a straightforward modification to include such an intermediate drying step.
- The amendments to claim 1 in each of the second or third auxiliary requests add subject-matter extending beyond the content of the parent application in that they include arbitrary selections of the initial permeability values of the paper web and the form of the treated areas, that were originally disclosed in the parent application in a different context.
- Auxiliary request 5 should not be admitted in the proceedings because the request is late, raises issues not previously discussed and also not allowable under Articles 56, 76, 84, 123(2) EPC.

Reasons for the Decision

1. All the appeals meet the requirements of Article 108 and Rule 99(2) EPC 2000, and are therefore admissible.

2. Background of the invention
The present patent is concerned with a process for producing a paper wrapper with reduced ignition
proclivity. The general aim of the invention is to provide an improved method of applying a film-forming solution to a paper wrapper for decreasing its permeability without causing non-uniform dimensional changes or affecting the appearance of the wrapper (paragraph [0007] of the patent specification). The core idea is to solve this problem by applying multiple layers of film forming composition in discrete areas, whereby the paper is dried after application of each layer.

3. Main request - Inventive step, Article 56 EPC

It is common ground that either one of the documents E3 or E12 can be considered as suitable starting point for assessing inventive step. Both documents contain similar disclosures of a multi-pass process of applying a film forming composition on a base paper forming discrete areas separated by untreated areas and are therefore relevant for the process of making the same as defined in claim 1 of the impugned patent. In E3 see for example col. 4, lines 25-65, in E12, see col.2, line 57, to col.3, lin29. E12 additionally considers using an aqueous film forming composition in col. 4, lines 44-47, and for that reason can be considered as the most promising starting point for the problem-solution approach.

The subject-matter of claim 1 differs from E12 by the sole feature that the paper wrapper is dried after application of each layer, the sole step defined in the characterising portion of claim 1.

3.1 Objective technical problem
The above distinguishing step is seen to provide an improved appearance of the smoking article produced by the multi-pass process. In relation to that effect, the patent identifies the problem of preventing coated bands shrinking with respect to uncoated ones, thereby causing non-uniformity and bulging portions, paragraph [0006]. In E12 the above problem is also addressed, and solved in a similar way by using an alternative non-aqueous solvent applied in a multi-pass process. E12 (col 6, lines 28-34) explains that the treated wrapper has a smooth and aesthetically pleasing appearance when dried.

As E12 already solves the same problem addressed in the patent, but in a different way, following established practice as outlined in Case law of the boards of appeal (CLBA), 8th edition, 2016, I.D.4.5, the objective technical problem can be formulated as providing an alternative way of preventing non-uniformity of the treated discrete areas in a multi-pass process and improving appearance.

In this regard the Board is unconvinced by the formulation of the objective technical problem proposed by the Appellant-Proprietor, namely to provide a further improved solution of the problem of wrinkling and appearance. Paragraph 7, first paragraph, of the application as filed merely states that it is believed that both the application in multiple steps and the intermediate drying avoid causing non-uniform changes. However, it cannot be deduced from this statement that vis-a-vis E12 intermediate drying per se results in an improved effect cf. CLBA, I.D.4.4.1 and the decisions cited therein).

3.2 Obviousness of the solution
E12 provides in columns 7 to 11 nine examples illustrative of the invention disclosed therein. Permeability and ignition proclivity are compared in examples of differing non-aqueous film forming compositions on the same base paper having the same initial average porosity, undergoing the same three pass process. E12, in col 7, lines 39-44, expressly indicates that the various coatings are applied "without intermediate drying". Similar examples and a similar passage is found in E3 (cf.: col 9, lines 29-34, and the examples that follow.

From this passage's express mention of intermediate drying, it is firstly inferred that intermediate drying between two film application steps is known as a measure applicable in multi-pass coating in the production line of cigarette makers. That is so to speak the starting point from which this passage departs.

Furthermore, when reading this express indication in col. 7 of E12 in its proper context, that is as part of a teaching that considers both aqueous and non-aqueous solutions (see claims 7 and 8) but which highlights the latter for not causing crinkling or puckering when drying (col. 6, lines 31-34), the skilled person understands that when preferentially using non-aqueous solutions intermediate drying can be dispensed with. Rather than teaching away from intermediate drying as something that would be disadvantageous and should be avoided at all costs, all that this passage says when read in context is that for non-aqueous solutions intermediate drying is not necessary. With regard to aqueous solutions however the passage read in context
does not provide any guidance as regards the desirability or not of intermediate drying.

It is thus established that E12 itself recognizes intermediate drying as known and applicable in the field of cigarette production though not necessary for non-aqueous solutions which dries by itself without crinkling or puckering. For the skilled person looking for an alternative to the known method of E12 of preventing wrinkling and improving appearance in multi-pass coating it would be obvious to consider this other possibility of drying between two applications of the film forming composition. This is in particular so where E12 provides no clear guidance for aqueous solutions as regards intermediate drying, and the skilled person would thus as a matter of course seriously contemplate such a measure that is not necessary for non-aqueous solutions. Even for non-aqueous solutions however, the fact that intermediate drying is no longer necessary does not mean he would be deterred from trying. He would also in that case consider the known intermediate drying, even if it may not be necessary, already when searching for nothing more than an alternative. He would not expect intermediate drying to have any deleterious effect, apart from possible additional costs. On the contrary, he would rather expect intermediate drying to speed up drying. Balancing speed against cost is then routine, workshop practice. In so doing and applying it in the process for producing a paper wrapper the skilled person would in an obvious manner and without the exercise of inventive skill arrive at a process according to claim 1 of the impugned patent.

As stated, the Board does not consider E12 (or E3) as teaching away from intermediate drying as argued by the
Appellant-Proprietor. Col 2, lines 32 to 34 of E3, explains that aqueous solutions reduce strength and cause the paper to crinkle or pucker in the coated areas. According to the Appellant-Proprietor it is for that reason that E3 rather teaches to select the non-aqueous solvent for solving the appearance problem. However this is not applicable for E12, which in col. 4, lines 44-47 considers the use of both aqueous and non-aqueous compositions. Furthermore the relatively better behaviour of non-aqueous solvent that is said not to cause the paper web to crinkle or pucker when drying (see E12:col 6, lines 28-32 same as in E3:col 8, lines 21-22) will not be understood by the skilled person to result from not drying between passes but is rather linked to the use of non-aqueous solutions which obviates intermediate drying.

Therefore the Board concludes that the subject-matter of claim 1 according to the main request lacks an inventive step, starting from E12 and applying the relevant technical information contained therein and as interpreted by the skilled person.

4. Auxiliary request 1 - Inventive step, Article 56 EPC

Claim 1 of this request corresponds to claim 1 as upheld in the impugned decision, and adds the features concerning the band width and the permeability upper limit of 25 Coresta in the treated areas. These additional parameters are directly disclosed in E12 (as in E3) and cannot therefore establish an inventive step for the multi-pass process according to claim 1 of this request. The Appellant-Proprietor did not challenge this finding.
5. Auxiliary request 2 to 4 - extension of subject-matter, Art 76(1) EPC

5.1 Claim 1 of auxiliary request 2 specifies the form of the treated areas as circumferential bands, and also defines the lower limit of permeability for the paper web at 60 Coresta. Claim 1 of auxiliary request 3 further adds an upper limit in that it specifies the range of this permeability from 60 to 110 Coresta.

The current patent originated as a divisional application from the earlier parent application published as E27. The Appellant-Proprietor quotes on the one hand the passage in the parent application E27 on page 7, last paragraph; or page 8, line 25 for the permeability of the paper web and page 9, last paragraph for the general configuration of the treated areas as bands.

The question arises whether the skilled person directly and unambiguously derives the claimed specific combinations from these separate, distinct passages in the parent application as filed.

This Board in the same composition was faced with a similar question in appeal T691/15 concerning amendments made in relation to the patent stemming from the parent application. Though not bound by that decision, (see CLBA, I.F.2.4.3), the Board holds that the conclusions drawn therein apply also to the present case. Thus as held in T691/15, Reasons 3.6:

"In the present case the passages referred to by the appellant in support of the amendments are distinct, disjunct passages of the original published application concerning ostensibly different aspects that may but need not play a role for the invention and
that can be read independently of each other. In some cases they moreover appear in a particular context from which they are then isolated.

... [the disjunct passages] convey to the reader the sense that apart from the recurring common theme of applying bands of film-forming composition there is no single specific teaching that certain conditions must necessarily be met to achieve the desired effect. The various aspects will thus be understood by the reader as facultative features of a broader teaching, each of which can be applied independently. More specifically, they do not direct the reader to any particular combination of the various aspects and parameter ranges detailed. Consequently, insofar as a particular combination is not already expressly stated, any combination of these various facultative, independent aspects results in a new specific teaching of their combined application for which there is no direct and unambiguous disclosure... "

Furthermore, reasons 3.7, "...In the Board's view it is exactly for this reason, that these various aspects are originally presented separately of one another and only separately, that they cannot be combined without going beyond that original disclosure. This is irrespective of whether these aspects are identified in the original text as general or generally applicable in some way. As long as they are presented as separate and distinct from one another, and not in a specific combination, subsequently defining or claiming that specific combination will add new subject-matter. For this reason the Board is also not convinced that the skilled person would immediately and unequivocally recognize these separate disparate aspects as constituent "basic elements" of a composite basic teaching".
In the present case the passages on pages 7, 8 and 9 of the published parent application E27 brought forward in support for the amendments are likewise separate and disjunct. The paragraph bridging pages 7 and 8 and line 25 of page 8 give exemplary wrapper permeability values for which multi-pass produces formation of reduced proclivity areas. There is no indication of what shape these areas might take, and in particular whether the value of at least 60 Coresta is generally valid for all shapes. In this regard page 8, lines 18 to 29, give a variety of increasingly limiting ranges, but it is again not indicated whether or which range is associated with any particular shape or any other parameter. Page 9, final paragraph, of E27, is then concerned with particular shape of the areas, namely as spaced bands, but dissociated from any particular wrapper (or band) permeability values or other parameter. These various passages are so disparate and disjunct, concerning independent aspects of a diffuse, speculative teaching, that that the skilled person would not immediately and unequivocally recognize these as constituent "basic elements" of a composite teaching.

The Appellant-Proprietor in support of the above amendment also cites parent claims 4 and 13. However, these claims are separately dependent on claim 1, while parent claim 13 also gives an upper permeability limit of 90 Coresta which is omitted from claim 1 in any version. Similarly, the passage bridging pages 12 and 13 disclose other specific combinations of parameters, where the paper web permeability is closely related to specific amounts of the film forming composition, which however have not been included in claim 1.
Hence the subject-matter of claim 1 according to the auxiliary request 2 and 3, irrespective of the question of their admissibility in the procedure, contains subject-matter extending beyond the content of the parent application as filed contrary to Art 76(1) EPC.

5.2 The above problem is only compounded by addition of further parameter ranges as in claim 1 according to auxiliary request 4 which adds permeability of the treated discrete areas of less than 20 Coresta, a corresponding BMI value of less than 8 cm$^{-1}$. Passages in the parent application giving values for treated area permeability, e.g. paragraph bridging pages 10 and 11 of E27, or BMI values, e.g. page 11, lines 16 to 30, do so in isolation of how the various different values given there might correlate with any of the other factors or aspects identified in the parent.

5.3 In the light of the above the Board concludes that claim 1 of each of the auxiliary requests 2 to 4 is directed at subject-matter that extends beyond the content of the earlier application as filed, contrary to Article 76(1) EPC.

6. Auxiliary request 5 - admission, Articles 13(1) and (3) RPBA:

6.1 Auxiliary request 5 was filed on 2 November 2017 shortly before oral proceedings set for 15 November 2017. It comprises a single independent claim deleting the features relating to the shape of the treated areas as circumferential bands, but adding the permeability of the paper web from about 60 to about 90 Coresta.
6.2 This request is ostensibly filed as a response to the Board's preliminary opinion. However, as that opinion in effect draws on issues already raised by the Appellant-Opponents in their earlier submissions, the Board is unable to see any clear justification for its late filing.

6.3 Furthermore, applying the criterion of "clear or prima facie allowability" developed in earlier case law concerned with admission of very late filed requests, see CLBA, IV.E.4.4.1 and 4.4.2, the request's focus on the permeability of the paper web represents a departure from the previous line of debate which focused on permeability of the wrapper. All the hitherto cited passages refer to the wrapper and it is not immediately clear how the permeability of the one relates to that of the other. Apart from the question of added subject-matter, the change from wrapper to web thus also causes a clarity problem under Article 84 EPC, as argued by Appellant-Opponents. It is also not immediately apparent how the selection of a limited range of web permeability values, where E12 is silent but not limited to any particular web permeability, resolves the lack of inventive step discussed earlier in the oral proceedings. If admitted, considerable discussion of these issues would be necessary before allowability could be concluded. This request therefore does not meet the criterion of clear allowability, and raises issues which the Board or the other parties cannot be reasonably expected to deal with in the oral proceedings.

6.4 For these reasons the Board decided to use its discretion under Articles 13(1) and (3) RPBA not to admit the late filed Auxiliary request 5 into the proceedings.
7. As the patent amended according to the main request and Auxiliary requests 1 to 4 does not meet the requirements of the EPC, and the remaining Auxiliary request 5 is not admitted, the Board must revoke the patent pursuant to Article 101(3)(b) EPC.

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:

G. Magouliotis A. de Vries

Decision electronically authenticated