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**Datasheet for the decision
of 22 November 2007**

Case Number: T 1418/04 - 3.2.05

Application Number: 96906118.3

Publication Number: 0815319

IPC: D21G 1/00

Language of the proceedings: EN

Title of invention:

Coated paperboard for formed articles

Patentee:

KORSNÄS AB

Opponents:

Stora Enso AB
Voith Paper GmbH
Metso Paper, Inc.

Headword:

-

Relevant legal provisions:

EPC Art. 83, 111(1), 123(2)(3)

Keyword:

"Admissibility (main request, yes)"
"Sufficiency of disclosure (main request, auxiliary requests 1
to 5, no; auxiliary request 6, yes)"
"Remittal (yes)"

Decisions cited:

-

Catchword:

-



Case Number: T 1418/04 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 22 November 2007

Appellant: KORSNÄS AB
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 22 October 2004
revoking European patent No. 0815319 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: W. Zellhuber
Members: P. Michel
E. Lachacinski

Summary of Facts and Submissions

- I. The appellant (patentee) lodged an appeal against the decision of the Opposition Division revoking European Patent no. 0 815 319.

The Opposition Division held that the subject-matter of at least some of the claims of each request of the appellant did not meet the requirements of Article 123(2) EPC.

- II. Oral proceedings were held before the Board of Appeal on 22 November 2007.

- III. The appellant requested that the decision under appeal be set aside and, as a main request, that the patent in suit be maintained as granted. As an auxiliary measure, he requested that the patent be maintained on the basis of the sets of claims filed as auxiliary requests 1 and 2 on 28 February 2005, or on the basis of the sets of claims filed as auxiliary requests 3 to 14 on 22 October 2007.

Respondents I, II and III (opponents 01, 02, 03) requested that the appeal be dismissed. Respondent II further requested that the main request be rejected as inadmissible and, should the Board hold the presented claims admissible, that the case be remitted to the department of first instance for further prosecution.

- IV. Claim 1 of the main request and auxiliary request 1 of the appellant reads as follows:

"1. Coated paperboard for formed articles, which paperboard consists of a fibermatrix in one, two or more layers and a coating and has adequate surface for printing and adequate surface gloss for each specific type of formed articles, characterized in that said paperboard has been calendered after coating with a heatable calender having a soft extended nip, and has reduced density and reduced grammage at a given value for bending force compared to corresponding coated paperboard which has been calendered before or before and after coating with a heatable or non-heatable calender having a hard or soft nip."

Claim 1 of auxiliary request 2 differs from claim 1 of the main request and auxiliary request 1 in that the words "of a length from 3 to 10 cm" are introduced after the term "soft extended nip".

Claim 5 of auxiliary request 3 reads as follows:

"Method of reducing the susceptibility to crack formation at folding of a coated paperboard with adequate surface for printing and adequate surface gloss for each specific type of formed articles, wherein the fibermatrix of the paperboard is composed of one, two or more layers, characterized in that said coated paperboard is produced in a production line wherein a calendering operation is performed only after a coating operation with a calender which is run at high temperature and has a soft extended nip."

Claim 3 of auxiliary request 4 differs from claim 5 of auxiliary request 3 in that the words "a calendering

operation is performed before a coating operation and after the coating operation there is performed a calendering operation with a calender which is run at high temperature and has a soft extended nip, or" are introduced after the expression "said coated paperboard is produced in a production line wherein".

Claim 3 of auxiliary request 5 differs from claim 3 of auxiliary request 4 in that the words "of a length from 3 to 10 cm" are introduced after the term "soft extended nip" (both occurrences).

Claims 1 and 2 of auxiliary request 6 read as follows:

"1. Production line for the production of coated paperboard, which paperboard consists of a fibermatrix in one, two or more layers and a coating and has adequate surface for printing and adequate surface gloss for each specific type of formed articles characterized in that there is arranged, only after a coating device, a heatable calender with a soft extended nip."

"2. Production line for the production of coated paperboard according to claim 1, where there is additionally arranged a calender before the coating device."

V. The appellant has argued substantially as follows in the written and oral procedure:

The appellant is adversely affected by the decision under appeal and the main request should be admitted.

The comparison specified in claim 1 is between the paperboard of the invention and any prior art coated paperboards having comparable values of bending forces and an adequate surface for printing and adequate surface gloss. Such comparisons show that the paperboard according to the invention has reduced density and reduced grammage. The operating conditions under which the prior art paperboards are produced are not critical as long as the product is for the same intended use.

Claim 5 of auxiliary request 3 and claim 3 of auxiliary requests 4 and 5 are directed to a "method of reducing the susceptibility to crack formation at folding of a coated paperboard". This criterion can be determined using any method of measuring crack formation.

The skilled person is capable of recognizing what constitutes an "adequate surface for printing and adequate surface gloss for each specific type of formed articles".

Claim 1 of auxiliary request 6 is directed to a production line in which calendering is only carried out after coating. Claim 2 refers to an alternative, less preferred embodiment, in which calendering is also carried out before coating. This would be understood by the reader of the description of the patent in suit, for example with reference to paragraph [0022].

VI. The respondents have argued substantially as follows in the written and oral procedure:

The main request of the appellant is inadmissible. During the oral proceedings before the opposition division, the appellant withdrew the request for maintenance of the patent in suit as granted.

In order to carry out an invention, the skilled person must know whether he is working in the area covered by the claim. In the case of the criterion specified in claim 1 of the main request and auxiliary requests 1 and 2 according to which the paperboard according to the invention "has reduced density and reduced grammage at a given value for bending force compared to corresponding coated paperboard which has been calendered before or before and after coating with a heatable or non-heatable calender having a hard or soft nip", this is not the case. In particular, the "corresponding" paperboard is not defined, so that it would be necessary to make a comparison with all known coated paperboards.

Claim 5 of auxiliary request 3 and claim 3 of auxiliary requests 4 and 5 refer to a "method of reducing the susceptibility to crack formation at folding of a coated paperboard". However, the patent in suit does not disclose a method of determining this parameter. Paragraph [0039] merely refers to an unspecified "standardized method".

There is also no guidance in the patent in suit which would enable the person skilled in the art to determine the meaning of the expression used in claim 1 of auxiliary request 6, "adequate surface for printing and adequate surface gloss for each specific type of formed articles".

The contradiction between claims 1 and 2 of auxiliary request 6 renders it impossible to perform the invention specified in claim 2. A production line in which there is arranged only after a coating device, a heatable calender with a soft extended nip and where there is additionally arranged a calender before the coating device does not and cannot exist. Whilst there is a disclosure of two embodiments of the invention, it is impossible to combine those embodiments.

The description at paragraphs [0015] and [0016] of the patent in suit only provides a teaching of how to carry out the invention for a limited range of articles. The claims, which are not restricted to a particular range of bending force or grammage thus go beyond the disclosure.

Reasons for the Decision

1. *Admissibility of the Main Request*

The Opposition Division held that all requests of the appellant were not allowable in view of Article 123(2) EPC, as a result of which the patent in suit was revoked. The appellant is thus adversely affected by the decision and is entitled to request maintenance of the patent as granted in order to avoid the presence of subject-matter which extends beyond the content of the application as filed and thereby attempt to overcome this objection (cf. the following decisions, none of which were published in the OJ: T 1018/02, section 2.4; T 699/00, section 2.1; and T 794/02, section 1.4).

The main request is accordingly admissible.

2. *Main Request and Auxiliary Requests 1 and 2*

2.1 Sufficiency of Disclosure

Claim 1 of the main request and auxiliary requests 1 and 2 specifies that the paperboard according to the invention "has reduced density and reduced grammage at a given value for bending force compared to corresponding coated paperboard which has been calendered before or before and after coating with a heatable or non-heatable calender having a hard or soft nip."

The person skilled in the art, wishing to know whether or not this criterion is satisfied, has to prepare an, in principle, unlimited number of corresponding coated paperboards having the same bending force and, in each case, measure their density and grammage (weight per unit area). If no paperboard can be found which has been calendered before or before and after coating with a heatable or non-heatable calender having a hard or soft nip and which has either a lower density or a lower grammage than the paperboard which has been calendered after coating with a heatable calender having a soft extended nip, then the claim is infringed.

This constitutes an undue burden, so that the requirement of Article 83 EPC is not satisfied.

3. *Auxiliary Requests 3, 4 and 5*

3.1 Sufficiency of Disclosure

Claim 5 of auxiliary request 3 and claim 3 of auxiliary requests 4 and 5 are directed to a "method of reducing the susceptibility to crack formation at folding of a coated paperboard".

The patent in suit does not disclose an objective method of determining the tendency of crack formation. As set out at paragraph [0039], an unspecified "standardized method" is used and evaluated subjectively on a scale from 1 to 5. In addition, the claim does not specify what comparison should be made in order to ascertain whether or not there has been a reduction in the tendency of crack formation. Finally, it may be noted that not all coated paperboards of the prior art will necessarily exhibit crack formation during folding, so that a reduction in the tendency of crack formation may not be possible.

The person skilled in the art is thus not in a position to determine whether or not a reduction in the tendency of crack formation has occurred, so that the requirement of Article 83 EPC is not satisfied for each of these requests.

4. *Auxiliary Request 6*

4.1 Amendments

Claims 1 and 2 correspond to claims 8 and 9 of both the application as filed and the patent in suit as granted.

The requirements of Article 123(2) and (3) are thus satisfied.

4.2 Sufficiency of Disclosure

4.2.1 Claim 1

Claim 1 specifies that the paperboard produced on the claimed production line has an "adequate surface for printing and adequate surface gloss for each specific type of formed articles".

As stated at page 4, line 1, of the patent in suit, the gloss is measured according to Tappi, T 480. Whilst the patent in suit does not provide any guidance as to what is meant by the term "adequate", the Board is of the opinion that the person skilled in the art is capable of ascertaining whether or not the surface of a paperboard is capable of accepting print and whether or not the gloss is satisfactory for a particular product. As regards the reference to "each specific type of formed articles", this must be construed to refer to generally accepted standards for a particular article such as the milk container referred to at paragraph [0002] of the patent in suit. The mere fact that these features of the claim do not serve to significantly restrict the scope of the claim does not imply that the skilled person is unable to carry out the invention.

The Board is further of the opinion that the person skilled in the art is capable of providing production lines suitable for producing coated paperboards of varying bending force and grammage. Whilst paragraphs [0015] and [0016] of the patent in suit only refer to

materials having a limited range of bending force, there does not appear to be any reason to suppose that the skilled person would not be capable of providing a production line suitable for producing paperboard of greater or smaller bending force which would be suitable for larger or smaller containers than those mentioned.

4.2.2 Claim 2

Claim 1 specifies that "there is arranged *only* after a coating device, a heatable calender with a soft extended nip" (italics introduced by the Board). However, claim 2 specifies that "there is additionally arranged a calender before the coating device".

The Board is of the opinion that the person skilled in the art would appreciate that the wording of claim 2 is in contradiction to that of claim 1. However, the patent must be construed by a mind willing to understand, not a mind desirous of misunderstanding. It is thus not the correct approach, having noted this contradiction, to make no further effort to give a meaning to claim 2. Instead, an attempt must be made to resolve this contradiction, in particular taking into account the description of the patent in suit.

Example 1 of the patent in suit indicates that a board which was calendered before coating constitutes an embodiment of the invention (page 4, lines 10 and 11). Example 2 notes that the improved stiffness "was greatest when no calendering was done before coating" (page 4, lines 31 and 32). In both Examples 2 and 3, the comparison of the invention with the prior art is

made between paperboards, either calendered before coating or not, but in each case calendered after coating in a calender with a soft extended nip, with a paperboard which is only calendered before coating (that is, the first paperboard in each of the tables). Paragraph [0022] also explains that, whilst calendering before coating is unnecessary, it may be performed under some circumstances.

The skilled reader of the description thus appreciates that there is a disclosure of two embodiments of the invention. In the first embodiment of the invention, there is only provided a heatable calender with a soft extended nip after the coating device. In the second embodiment of the invention, the production line includes a calender before the coating device as well as a heatable calender with a soft extended nip after the coating device. Claim 1 is directed to the first embodiment and claim 2 is directed to the second embodiment.

4.2.3 The requirement of Article 83 EPC is thus satisfied.

5. The Opposition Division has not yet had the opportunity of considering the issues of novelty and inventive step. It is accordingly considered appropriate, in accordance with Article 111(1) EPC, to remit the case to the department of first instance for consideration of these issues.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution on the basis of the claims according to auxiliary request 6 filed on 22 October 2007.

The Registrar:

The Chairman:

D. Meyfarth

W. Zellhuber