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**Datasheet for the decision
of 29 May 2024**

Case Number: T 1894/22 - 3.3.06

Application Number: 16724435.9

Publication Number: 3286378

IPC: D21H23/48, D21H25/04,
D21H27/10, D21H19/82

Language of the proceedings: EN

Title of invention:

METHOD AND SYSTEM FOR MANUFACTURING A COATED PAPERBOARD AND A
COATED PAPERBOARD

Patent Proprietor:

Kotkamills Group Oyj

Opponents:

Stora Enso Oyj
Metsä Board Oyj

Headword:

Kotkamills/Coated Paperboard

Relevant legal provisions:

EPC Art. 56
RPBA 2020 Art. 12(4), 12(6)

Keyword:

Inventive step - (no)

Late-filed request - no longer maintained in first-instance proceedings (yes) - admitted (no)

Decisions cited:

Catchword:



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Case Number: T 1894/22 - 3.3.06

D E C I S I O N
of Technical Board of Appeal 3.3.06
of 29 May 2024

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
7 June 2022 concerning maintenance of the
European Patent No. 3286378 in amended form.**

Composition of the Board:

Chairman J.-M. Schwaller
Members: S. Arrojo
 R. Cramer

Summary of Facts and Submissions

I. Appeals were filed by opponents 1 and 2 (hereinafter appellant 1 or 2, or "the appellants") against the decision of the opposition division to maintain European patent No. 3 286 378 in amended form on the basis of auxiliary request 2 filed during oral proceedings on 7 December 2021, with claim 1 thereof reading as follows:

"1. A method for manufacturing coated paperboard suitable for packaging paperboard applications, the method comprising

- coating a first surface of the paperboard web by applying*
 - a. a first coating composition in a precoating unit for forming a precoating layer comprising inorganic mineral pigment particles and least one binder for sealing the first surface of the paperboard web, weight of the precoating layer being less than 30 g/m², and*
 - b. a second coating composition in form of an aqueous polymer dispersion in a curtain coating unit for forming barrier coating layer having a weight less than 20 g/m² on top of the precoating layer, and*
 - c. a third coating composition comprising a polymer dispersion in the curtain coating unit for forming heat sealable coating layer, having a weight less than 20 g/m², on top of the barrier coating layer, whereby the second and third coating layers are applied simultaneously as aqueous dispersions without intermediate drying between the coating layers,*
- controlling and adjusting the temperature of the coated paperboard web in an adjustable heating unit, which is configured to control and adjust the*

temperature of the paperboard web and to remove water therefrom, and
- cooling the paperboard web in at least one cooling unit."

- II. In their respective statement of grounds of appeal, appellants 1 and 2 both requested to set aside the decision and to revoke the patent, arguing that the subject-matter claimed extended beyond the content of the application as filed and that the claimed invention was insufficiently disclosed. Further, the claimed subject-matter as upheld by the opposition division was not inventive, according to appellant 1, in view of **D1** (US 5,654,039), **D4** (US 6,548,120 B1) or **D14** (WO 2014/005697 A2) combined with the teachings of any one of **D2** (US 2003/0188839 A1), **D3** (UrSchleer et al., "*Multilayer Curtain Coating - An enabling technology for increased efficiency and new paper grades*", 22. Streicherei-Symposium 2005, **D5** (Shu et al, "*Development and Production Experience of the Multilayer Curtain-Coated Linerboard of Ji'an PM3*", Tappi Journal, February 2014), **D7** (Sangl R., "*Curtain coating in the paper industry - an update*", Coating, 2010), **D8** (EP 1 416 087 A1) or **D33** (EP 1964971 A2); according to appellant 2, in view of D2 combined with **D9** (US 2011/0262745 A1), D8 combined with D9, or D1 combined with D8 or D33.
- III. With its reply, the proprietor and respondent requested to dismiss the appeals (main request). Furthermore, it filed two sets of amended claims as auxiliary requests 1 and 2 and requested as an auxiliary measure to maintain the patent in amended form on the basis of one of these requests.

- IV. In a submission dated 29 November 2023, appellant 2 requested not to admit said auxiliary requests and argued that they infringed Articles 123(2) and 56 EPC.
- V. In a further submission, appellant 2 requested that the already scheduled oral proceedings be postponed.
- VI. In a communication under Article 15(1) RPBA, the Board expressed its preliminary opinion that the main request was not inventive and that auxiliary requests 1 and 2 should not be admitted into the proceedings.
- VII. The Board subsequently rescheduled the oral proceedings for 10 July 2024, but the respondent - in a submission dated 22 May 2024 - announced that it would not attend them. It also filed additional arguments and requested a decision on the basis of the written submissions.

Reasons for the Decision

- 1. Issuance of a written decision and cancellation of the scheduled oral hearing
 - 1.1 The Board interprets the respondent's announcement of non-attendance at the oral hearing and its request for a written decision as a withdrawal of the request for an oral proceedings or, alternatively, as an indication that the issuance of a written decision takes precedence over the request for an oral hearing.
 - 1.2 Since the Board considers that the patent should be revoked, notwithstanding the new arguments filed by the respondent, a written decision can be issued without oral proceedings and without infringing the parties' right to be heard under Article 113(1) EPC.

2. Main request - Inventive Step

The requirements of Article 56 EPC are not met for the following reasons:

2.1 Closest prior art

2.1.1 Documents D1, D2, D4, D8 and D14 have been cited as possible starting points for the inventive step assessment. In the Board's view, whilst any one would represent a valid starting point, D14 is the most promising springboard, as the paperboard manufactured therein is very similar to those produced with the method according to the invention.

2.1.2 The opposition division argued that D14 was not a suitable starting point, because it disclosed that each coating should be dried and cooled before the next one was applied and does not mention curtain coating as an alternative.

2.1.3 In the Board's view, a document may be considered an unsuitable or at least an unpromising starting point if arriving at the claimed invention therefrom would require departing from the underlying technical context and/or the purpose of that document, e.g. eliminating or substituting a feature which is an important part of the relevant technical context and/or is essential for achieving the desired technical effect(s). This is however not the case in D14, which only refers to the drying of each individual coating (see page 12, 4th paragraph) as an optional way of forming the sheet in accordance with processes known from the background art ("*... the water barrier coating and the sealable coating, can be applied according to known processes ...*"). Since neither the claims in D14 nor

the document as a whole indicate that this feature would play an important role in achieving the main object in this document (namely providing a recyclable sheet material for a container), there is no reason to conclude that the skilled person would disregard D14 as a suitable starting point. Furthermore, contrary to the arguments of the opposition division, D14 explicitly discloses (page 12, last line) curtain coating as an alternative. The inventive step argumentation will therefore be formulated starting from D14 as representing the closest prior art.

2.1.4 The subject-matter of claim 1 differs therefrom in that the second and third layers are applied simultaneously without drying each coating in between.

2.2 Problem solved by the invention

2.2.1 According to the respondent, the technical effect obtained by simultaneously applying both coatings was the provision of a paperboard with a thin multilayer coating having good barrier and heat sealing properties, wherein the barriers did not repel each other.

2.2.2 The examples disclosed in pars. [0071] to [0082] describe that a paperboard coated with such a process provides good barrier and sealing properties and can be treated as recyclable waste after use. By contrast, it is indicated that a conventional PE-extruded cup could not be treated as recyclable waste.

2.2.3 The Board notes that the examples in the patent however do not provide any evidence to assess the technical effect of the features distinguishing the claimed process from the one according to the closest prior art

disclosed in D14. Furthermore, the examples in the patent omit essential information for understanding the effects of simultaneously applying the different coatings. In particular, example 2 does not disclose which polymers are used for manufacturing the only exemplary coated paperboard in the patent, an information which appears to be relevant for assessing how the selected materials affect the recyclability of the paperboard with respect to the PE-extruded cups. There is also no specific data on the performance of the barriers or on the recyclability of the coated paperboard according to the invention, let alone an analysis as to why the paperboard according to the alleged invention is considered to be more recyclable than PE-extruded cups. In view of this very limited information, it is difficult to establish a link between the solution proposed in the patent and a specific technical effect. All which can be deduced from the broadly described experiments in the patent is that the claimed process gives rise to a coated paperboard which has appropriate sealing and recyclability properties. There is however no basis for concluding that the recyclability or the efficiency of the barriers of the coated paperboard according to the alleged invention would be better than those of the closest prior art known from D14.

2.2.4 Notwithstanding the above considerations, it will be assumed for the sake of the argument (in the respondent's favour) that the application of the two layers in a single step reduces the complexity of the process.

2.2.5 The problem solved by the alleged invention is thus to provide an alternative process for obtaining a

paperboard with appropriate sealing and recyclability properties in a simplified way.

2.3 Obviousness of the invention

2.3.1 Document D8 discloses a process for producing a multilayered coated substrate with at least two different barrier functionalities for packaging and beverages (see pars. [0001] and [0002]). According to par. [0002], the conventional methods for applying multiple coatings have several drawbacks which create limits on how thin the coating may be. Moreover, D8 indicates (pars. [0002] and [0004]) that the sequential coating of the layers (i.e. with an intermediate drying of each coating in between) requires the application of the coatings onto hydrophobic layers which are water repellent and also the use of different coating stations, which is capital intensive and costly. To overcome these problems, D8 proposes (par. [0035]) the application of several coatings in a single step (i.e. without drying or cooling steps between the application of each layer) using a multilayer curtain coating device.

2.3.2 The respondent argued that D14 explicitly disclosed that each of the coatings was dried and preferably cooled before the next coating was applied. Even though curtain coating was mentioned as an alternative in D14, it was apparent that this would be implemented using two separate curtain coaters with a drying step in between. No further indication was given in D14 that the barrier coating and the heat sealable coating layers could be applied simultaneously and without an intermediate drying step. Even if the only problem solved by the invention was to propose an alternative method, there was no reason to incorporate the

teachings of D8 in a way which would lead to the present invention. Document D8 proposes using a multilayer curtain device for simultaneously applying several coatings, which would not allow drying or cooling of each layer between the coatings. The skilled person starting from D14 would therefore not consider incorporating this teaching, as it would be contrary to the mandatory use of an intermediate drying step and the preferred cooling step between the application of the coatings.

- 2.3.3 The Board disagrees with these arguments because they are based on the assumption that a skilled person would only consider the teachings in D14 and would have an a priori prejudice against modifying any feature in that document. This might indeed be the case when the modified or substituted feature represents an important part of the relevant technical context and/or is essential for achieving the desired technical effect(s) of the invention in this prior art. However, as indicated above, the intermediate drying and cooling of the coating layers in D14 is simply based on "known processes" (see page 12, 3rd paragraph). Nothing in this document indicates that such intermediate drying/cooling steps are an important or essential aspect of the invention therein, so the skilled person would have no prejudice to contemplate other alternatives. Moreover, document D8 does not simply propose a multi-coating curtain device/process as an alternative, but gives multiple hints and incentives to incorporate this solution, as it explicitly explains the disadvantages of using separate curtain coatings with intermediate drying/cooling steps, as well as the advantages of applying several coatings in a single step. In fact, document D8 explicitly states (see paragraph [0004]) that the separate application of individual layers is

capital intensive because it requires multiple coating stations, which would be a direct indication to the skilled person that the solutions proposed in this document would solve the underlying technical problem of simplifying the process and the equipment.

2.3.4 In view of the above considerations, the Board concludes that a skilled person seeking to solve the problem of simplifying the process of D14 would take the teachings of D8 into account, and in doing so would arrive at the subject-matter of claim 1 without exercising inventive skills.

2.4 The subject-matter of claim 1 at issue therefore lacks an inventive step in view of the disclosure of D14 combined with the teachings of D8.

3. Auxiliary requests 1 and 2 - Admissibility

3.1 These requests were filed with the reply to the appeals, and the respondent indicated that they corresponded to auxiliary requests 2 and 3 filed during opposition proceedings.

3.2 The board notes that auxiliary requests 2 and 3 referred to by the respondent appear to correspond to those submitted on 3 December 2021. However, as pointed out by appellant 2, those requests were withdrawn at the hearing before the opposition division (see points 9 and 10 of the 'Summary of the facts and submissions' of the contested decision) and replaced by auxiliary requests 1 and 2, which are no longer pursued in the appeal proceedings.

- 3.3 The auxiliary requests therefore constitute an amendment of the case under Article 12(4) RPBA, so their admittance is at the discretion of the Board.
- 3.4 According to Article 12(6) RPBA, the Board shall not admit requests which were no longer maintained in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.
- 3.5 In the present case, the Board sees no circumstance which would justify admitting said auxiliary requests into the proceedings. The respondent has not even met the basic requirements under Article 12(4) RPBA to identify the amendments to the case and to provide reasons as to why the previously withdrawn requests have been resubmitted at the appeal stage. Moreover, the Board is also not convinced that the amendments clearly overcome the outstanding objections, as the features added to the claims have not been shown to provide any unexpected effect and appear to represent conventional steps in the processes for manufacturing the coated paperboard of the cited prior art.
- 3.6 Under these circumstances, the Board exercises its discretion not to admit auxiliary requests 1 and 2 into the appeal proceedings under Articles 12(4) and (6) RPBA.
4. Since none of the requests submitted by the respondent are both admissible and allowable, the patent must be revoked.

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:



A. Pinna

J.-M. Schwaller

Decision electronically authenticated