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**Datasheet for the decision
of 17 April 2018**

Case Number: T 0499/15 - 3.2.07

Application Number: 11704299.4

Publication Number: 2459459

IPC: B65D21/02, B65D77/20, B65D81/20

Language of the proceedings: EN

Title of invention:
SEALABLE CONTAINER, SEALED CONTAINER AND PROCESSES FOR MAKING
A SEALABLE CONTAINER AND A SEALED CONTAINER

Applicant:
Linpac Packaging Limited

Headword:

Relevant legal provisions:
EPC Art. 54(2), 56

Keyword:
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: T 0499/15 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 17 April 2018

Appellant: Linpac Packaging Limited
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Representative: Kei, Enomoto
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 22 October 2014
refusing European patent application No.
11704299.4 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman K. Poalas
Members: V. Bevilacqua
G. Weiss

Summary of Facts and Submissions

- I. The applicant lodged an appeal against the decision of the examining division to refuse European patent application No. 11 704 299.4.
- II. The following documents known from the examination proceedings are mentioned in the present decision:
- D1: WO 2009/121834 A1;
D2: EP 0 440 550 A1;
D4: WO 99/28123;
D5: US 4 427 148 A;
D6: DE 21 44 653 A1.
- III. The decision of the examining division was to refuse the application on the basis of lack of novelty over D1 and lack of inventive step over D2 of the subject-matters of claims 1, 15 and 21 of the main request.
- IV. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed with letter of 19 February 2015 (corresponding to the main request on the basis of which the appealed decision was issued).
- V. Independent **claim 1 of the main request** reads as follows:
- "A container comprising a base and a continuous side wall extending substantially perpendicular to the base with a peripheral flange formed along the upper, in use, edge of the continuous side wall, wherein the base and the continuous side wall consist essentially of polyethylene terephthalate (PET) wherein a layer of adhesive is located on an upper, in

use, surface of the peripheral flange and said layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall and does not extend onto the base, wherein the container further comprises a lidding film which may be sealed to the peripheral flange to create a sealed space between the base, continuous side wall and lidding film; and wherein the lidding film is a multi-layer film comprising a seal layer and the seal layer comprises polypropylene (PP) and/or PE."

Independent **claim 15 of the main request** reads as follows:

"A process for making a container according to any of claims 1 to 9, wherein the process comprises:
a) providing a container comprising a base and a continuous side wall upstanding from the base with a peripheral flange formed along the upper, in use, edge of the continuous side wall, wherein said base and side wall essentially of polyethylene terephthalate (PET); and
b) applying a layer of adhesive to an upper, in use, surface of the peripheral flange to produce a sealable container and so that the layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall and does not extend onto the base
c) providing a multi-layer lidding film comprising a seal layer and the seal layer comprises polypropylene (PP) and/or PE."

Independent **claim 21 of the main request** reads as follows:

"A process for making a container according to any of claims 10 to 14, wherein the process comprises:
a) providing a container prepared according to any of claims 15 to 20;
b) applying the lidding film to the peripheral flange of the container; and
c) applying pressure to the peripheral flange to seal the lidding film to the container."

VI. Insofar as relevant to the present decision the appellant argued substantially as follows.

D1 is not novelty-destroying, because it does not describe a container comprising a base and a continuous side wall, but rather a tray with a bearing surface for a film, and does not discuss the issue of recyclability.

D1 discloses a specific multi-layer lidding film together with a PE-coated PET tray (see example 6).

D1 identifies at page 16, lines 5-9 the flange as a sealing surface to be coated with adhesive, but does not directly and unambiguously disclose that the layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall and does not extend onto the base.

This passage indicates that the container (i.e. not the lid) is coated with a sealable layer, but should be seen in its overall context, according to which a uniform adhesive or seal layer is applied onto the whole surface of the tray.

The container of D1 is made of PET, the lidding film is a multilayer film comprising a pressure-sensitive acrylate adhesive layer, and not a polyethylene film.

The Examining Division also wrongly concluded that the subject-matter of claims 1, 15 and 21 of the main request lacks an inventive step over the disclosure of D2, the only distinguishing feature being the use of a container consisting essentially of PET.

D2 is not a suitable starting point because the present invention concerns containers specifically made of PET.

As PET-only containers are particularly expensive and complex to manufacture, starting from D2 the selection of PET as a new material would not be obvious, even if polyester is mentioned in this document.

Choosing PET, amongst polyester polymers, despite the fact that it is difficult to seal a lidding film onto PET and despite the fact that the preferred embodiment of D2 has a PP/adhesive/EVOH/adhesive/PP multilayer structure (Figure 1) requires the exercise of an inventive activity.

Starting from D2 as closest prior art, the skilled person would also need to select first a monolayer structure from the list of container materials including both mono- and multilayer structures, and optional barrier layers, and then to select further a lidding film comprising PP from the list of materials at column 2, lines 11-32, despite the fact that the preferred embodiment has a lidding film of PET/aluminium/lacquer, or to select a lidding film comprising a PE seal layer, which is neither listed in D2 nor used in D1.

Inventive step should also be acknowledged starting from D1.

The effect of the distinguishing feature is that the quantity of PET contaminated by a PE layer is minimized. This improves the transparency of the objects produced with this PET material, when it is recycled.

D2 does not provide any hint to solve this problem as claims 1, 15 and 21 propose, as it addresses issues of odour and repeated closing and opening of a reclosable packaging.

Minimizing the quantity of PET material covered with adhesive is also not taught in any of the available documents.

Reasons for the Decision

1. Novelty
 - 1.1 Claim 1 of the main request
 - 1.1.1 The appellant argues that D1 fails to disclose a container comprising a base and a continuous side wall, and instead discloses a tray with a bearing surface for a film.

The board disagrees.

D1 (see from page 15, line 36 to page 16, line 9) discloses a container comprising a base and a continuous side wall (base and side wall are implicitly

disclosed by the terms "Schale oder Dose"; see page 16, line 8) extending substantially perpendicular to the base with a peripheral flange ("Auflagefläche"; see page 16, line 9) formed along the upper, in use, edge of the continuous side wall, wherein the base and the continuous side wall consist essentially of polyethylene terephthalate (PET; see page 16, line 6) wherein a layer of adhesive ("siegelbaren Schicht"; see page 16, line 7) is located on an upper, in use, surface of the peripheral flange and said layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall (called "Rand" at page 16, line 7 and "Auflagefläche" at page 16, line 9).

- 1.1.2 The appellant then argues that the lidding film of D1 does not comprise polyethylene.

The board disagrees.

The container of D1 comprises a lidding film ("Verschlussfolie"; see page 16, line 6) which may be sealed to the peripheral flange in order to seal the container. The lidding film is thereby a multi-layer film ("Mehrschichtfolie"; see page 16, line 1) comprising a seal layer (called "Schicht c") in D1, see page 15, lines 36-40) and the seal layer comprises (see page 12, line 30) polypropylene (PP) or polyethylene (PE).

- 1.1.3 The appellant then argues that D1 does not directly and unambiguously disclose that the layer of adhesive does not extend onto the vertical surfaces of the continuous side wall and does not extend onto the base.

The board agrees.

D1 clearly discloses that the adhesive is to be applied on the areas which have to be sealed (see page 16, line 9), and specifies that the flange of the container is one of these areas, but it does not exclude that an upper portion of the side wall or other parts of the container could also be one of these areas to be sealed.

Based on that, the subject-matter of claim 1 is new.

1.2 Claim 15 of the main request

D1 also discloses a process for making a container, wherein the process comprises:

- a) providing a container ("Schale"; see page 16, line 8), comprising a base and a continuous side wall upstanding from the base with a peripheral flange formed along the upper, in use, edge of the continuous side wall ("Rand"; see page 16, line 7), wherein said base and side wall essentially of polyethylene terephthalate (PET; see line 6); and
- b) applying a layer of adhesive ("siegelbaren Schicht"; see page 16, line 7) to an upper, in use, surface of the peripheral flange to produce a sealable container
- c) providing a multi-layer lidding film (see page 16, line 1) comprising a seal layer and the seal layer comprises polypropylene (PP) and/or polyethylene (PE) (see page 12, line 30).

As discussed in the previous point, this process does not necessarily exclude that the layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall and does not extend onto the base.

The board therefore concludes that the subject-matter of claim 15 of the main request is also new over D1.

1.3 Claim 21 of the main request

D1 also discloses a process for making a container, wherein, as stipulated in claim 10 of the main request, the lidding film is sealed thereto.

Said process comprises:

- a) providing a container;
- b) applying the lidding film to the peripheral flange of the container (see page 16, lines 1-9); and
- c) applying pressure ("Zusammenpressen"; see page 16, line 37) to the peripheral flange to seal the lidding film to the container.

However, as this container is not prepared according to the process of claim 15, according to which adhesive is excluded from extending onto the vertical, in use, surfaces of the continuous side wall or onto the base, the subject-matter of claim 21 is also new over D1.

2. Inventive step - Claim 1 of the main request

2.1 Starting from D1

2.1.1 Distinguishing feature

D1 discloses a container and a process for making such a container which are considered by the board as representing the closest prior art for the subject-matters of claims 1, 15 and 21 of the main request.

As discussed above, D1 fails to disclose that the layer of adhesive applied to the flange does not extend onto

the vertical, in use, surfaces of the continuous side wall of the container and does not extend onto the base.

2.1.2 Effect - problem to be solved

The effect of this distinguishing feature, which is present in the subject-matter of all the independent claims of the main request (claims 1, 15 and 21), is, according to the original description (see page 8 lines 6-8), that the quantity of PET contaminated by adhesive is minimized. This improves the transparency of the objects produced with this PET material, when it is recycled (see again the originally filed description, the paragraph bridging pages 7 and 8).

Therefore, the problem to be solved is to be seen in the provision of a suitable PET container which enables the production of clear products for the recycling process.

2.1.3 Discussion of inventive step

D1 itself does not provide a hint to solve the above-mentioned problem by using the distinguishing features (see point 2.1.1 above) of claims 1, 15 and 21 of the main request, as said document addresses issues of odour and repeated closing and opening of reclosable packagings, and does not discuss recycling.

No teaching related to these distinguishing features can be extracted from D2, because the container of D2 is not made of PET, and because the multi-layer lidding film (see Figures 2-4, and column 2, lines 26-32, where the example Aluminium - Polyolefin is disclosed) does

not comprise a seal layer comprising polypropylene (PP) and/or PE.

D4 discloses a PET container (page 12, lines 7-8), but does not mention that adhesive should be coated only on the flange thereof. According to D4, page 12, lines 21-22, the container may be completely coated with an oxygen impermeable material on the inside or the outside, and not with an adhesive.

D5 also has no relevance to issues related to the transparency of recycled PET, as it discloses a container made of paperboard (column 2, line 48).

D6 also fails to mention PET (see the end of the first paragraph at page 3), and fails to address issues of recycling of this material.

Minimizing the quantity of PET material covered with adhesive is therefore neither taught nor suggested by any of the available documents.

For this reason, inventive step starting from D1 is acknowledged.

2.2 Starting from D2

D2 is less suitable than D1 as a starting point to discuss inventive step because it fails not only to disclose a container made of PET (see column 2 lines 11-25, where "polyester" is mentioned), but also because the multi-layer lidding film (see Figures 2-4, and column 2, lines 26-32, where the example Aluminium - Polyolefin is disclosed) does not comprise a seal layer comprising polypropylene (PP) and/or PE (polyolefin is mentioned, which is a class of polymers

comprising PP and PE). It further fails to disclose the feature of claim 1 that the layer of adhesive does not extend onto the vertical, in use, surfaces of the continuous side wall and does not extend onto the base.

Furthermore, D2 is not directed to the problem of providing a suitable PET container which enables the production of clear products for the recycling process. Since none of the documents D1 and D4 to D6 is directed to minimizing the quantity of PET material covered with adhesive the skilled person would not lead to the subject-matter of claim 1 even by a combination of the teaching of D2 with the teaching of one of the documents D4 to D6.

Therefore, starting from D2 as closest prior art the presence of an inventive step is acknowledged.

3. Inventive step - Claims 15 and 21 of the main request

The above-mentioned finding of the board concerning the inventive step issue of claim 1 of the main request is also applicable to claims 15 and 21 of the main request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division with the order to grant a patent on the basis of claims 1 to 26 of the main request filed with the letter dated 19 February 2015 and a description to be adapted thereto.

The Registrar:

The Chairman:



G. Nachtigall

K. Poalas

Decision electronically authenticated