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Datasheet for the decision of 19 December 2006

Case Number: T 0266/05 - 3.2.07

Application Number: 96912812.3

Publication Number: 0824480

IPC: B65D 81/26

Language of the proceedings: EN

Title of invention:
Desiccant material included in a closed container

Patentee:
CSP Technologies, Inc.

Opponent:
Süd-Chemie, Inc.

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 123(2)

Keyword:
"Novelty - yes"
"Inventive step -no"
"Added subject-matter - yes (sixth and seventh auxiliary request"

Decisions cited:
-

Catchword:
-

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Case Number: T 0266/05 - 3.2.07

D E C I S I O N
of the Technical Board of Appeal 3.2.07
of 19 December 2006

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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 8 February 2005 concerning maintenance of European patent No. 0824480 in amended form.**

Composition of the Board:

Chairman: H. Meinders
Members: P. O'Reilly
C. Holtz

Summary of Facts and Submissions

I. Opposition was filed against European patent No. 0 824 480 as a whole based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The opposition division decided to maintain the patent in accordance with an auxiliary request.

II. Appellant I/respondent II (hereinafter appellant/proprietor) and appellant II/respondent I (hereinafter appellant/opponent) each filed an appeal against that decision.

III. Oral proceedings were held before the Board on 19 December 2006.

IV. The appellant/proprietor requested that the decision under appeal be set aside and the patent be maintained unamended (main request). Alternatively, the appellant/proprietor requested that the patent should be maintained in amended form in accordance with one of the first to third or seventh auxiliary requests filed with letter of 14 November 2006 or in accordance with the sixth or eighth auxiliary requests filed during the oral proceedings before the Board. The appellant/proprietor further requested that the appeal of the opponent be dismissed.

The appellant/opponent requested that the decision under appeal be set aside and the patent be revoked. The appellant/opponent further requested that the appeal of the proprietor be dismissed.

V. The independent claim of the patent as granted (main request) reads as follows:

"1. A container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, characterised in that said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200)."

The independent claim of the first auxiliary request reads as follows (amendments when compared to claim 1 of the main request are depicted in bold):

"1. A container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, characterised in that said insert (200) is

fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200) **and said desiccant entrained thermoplastic from which said insert (200) is constructed is of a high desiccant concentration having at least forty percent desiccant to thermoplastic by weight**."

The independent claim of the second auxiliary request reads as follows (amendments when compared to claim 1 of the first auxiliary request are depicted in bold):

"1. A container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, characterised in that said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200), ~~and~~ said desiccant entrained thermoplastic from which said insert (200) is constructed is of a high desiccant concentration having at least forty percent desiccant to thermoplastic by weight **and the materials of construction of said insert and said container body are not compatible**."

The independent claim of the third auxiliary request reads as follows (amendments when compared to claim 1 of

the second auxiliary request are depicted in bold or struck through):

"1. A container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, characterised in that said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200), said desiccant entrained thermoplastic from which said insert (200) is constructed is of a high desiccant concentration having ~~at least forty~~ **40-75** percent desiccant to thermoplastic by weight and the materials of construction of said insert and said container body are not compatible."

The independent claim of the sixth auxiliary request reads as follows (amendments when compared to claim 1 of the third auxiliary request are depicted in bold):

"1. A container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing

said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, characterised in that said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200), said desiccant entrained thermoplastic from which said insert (200) is constructed is of a high desiccant concentration having 40-75 percent desiccant to thermoplastic by weight, **said insert (200) and said container body (12) are co-molded into a unitary body,** and the materials of construction of said insert and said container body are not compatible."

The independent claim of the seventh auxiliary request reads as follows (amendments when compared to claim 1 of the sixth auxiliary request are depicted in bold):

"1. A container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, characterised in that said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200), said

desiccant entrained thermoplastic from which said insert (200) is constructed is of a high desiccant concentration having 40-75 percent desiccant to thermoplastic by weight, said insert (200) and said container body (12) are co-molded into a unitary body, ~~and~~ the materials of construction of said insert and said container body are not compatible **and said container body is constructed from polypropylene**."

The independent claim of the eighth auxiliary request reads as follows (amendments when compared to claim 1 of the **main** request are depicted in bold):

"1. **A method of manufacturing** a container (01) having desiccating capabilities, said container (01) comprising: a container body (12) forming at least a partial enclosure so that an inside space (201) and an outside space (202) is created with respect to said container body (12); a cap (14) installable upon said container body (12) for closing said container body (12); an insert (200) formed from desiccant entrained thermoplastic being fixed relative to said container body (12); and at least a portion of said insert (200) being exposed to the inside space of said container body (12) for absorbing moisture therefrom, ~~characterised in that~~ **wherein** said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200), **and said desiccant entrained thermoplastic from which said insert (200) is constructed is of a high desiccant concentration having at least forty percent desiccant to thermoplastic by weight, wherein the method comprises the following steps: injecting a low desiccant concentrated thermoplastic container body (12) about a high desiccant concentrate**

thermoplastic insert (200), cooling or allowing to cool the assembly of said body (12) and insert (200), characterised by the further step wherein the body (12) will shrink about insert (200) and wherein the materials of construction of the insert (200) and the container body (12) do not automatically adhere one to the other as a result of the manufacturing process, and the container body is constructed from polypropylene."

VI. The documents cited in the present decision are the following:

D3: DE-A-4 013 799
D4: US-A-5 078 909
D9: EP-A-0 599 690
D14: DE-A-3 632 379
D16: EP-A-0 561 051
D26: Plastic Part Design for Injection Molding, 1994, Robert A. Malloy.

VII. The arguments of the appellant/proprietor may be summarised as follows:

(i) The product of claim 1 of the main request is novel over D3 which does not disclose a "shrink-fit". The other prior art documents give no information as to which material is used for the container. For the insert there is no information about the desiccant material. In the declaration of Mr Judek dated 5 May 2002 the table on page 3 shows that a polyethylene and desiccant mixture can shrink more in its width than just polypropylene, so that with polypropylene as a material for the container there would not

necessarily be a shrink-fit. Also, the experiments described in the declaration of Mr Grossman show that a shrink-fit does not necessarily occur.

The subject-matter of claim 1 is also novel over each of D14 and D16.

(ii) The subject-matter of claim 1 of the main request involves an inventive step. D3 is the nearest prior art document. Starting from D3 the problem to be solved is how to retain an insert as an integral part of the container even when it will not bind with the container material. D3 does not concern this problem because the retention is mechanical. Material incompatibilities and differential shrinking are not addressed in D3. There are many ways of attaching the insert into the cap of D3. It could be a press-fit, i.e. not co-moulded, sonically welded or attached by adhesive. The skilled person would thus have no reason to consider a shrink-fit.

Also, starting from D4 or D14 the subject-matter of claim 1 of this request involves an inventive step.

(iii) The subject-matter of claim 1 of the first auxiliary request involves an inventive step. The extra feature of at least forty percent desiccant implies a high loading of desiccant which leads to incompatibility with the material of the container body and hence to a prejudice against such a high loading.

(iv) The subject-matter of claim 1 of the second auxiliary request involves an inventive step. The extra feature that the materials of the insert and container are explicitly specified as incompatible means that the arguments concerning incompatibility presented with respect to the first auxiliary request also apply to this request.

(v) The subject-matter of claim 1 of the third auxiliary request involves an inventive step. The extra feature compared to the second auxiliary request is that the maximum amount of desiccant is seventy-five percent which is not suggested in D3.

(vi) The amendments to claim 1 of the sixth auxiliary request do not contravene Article 123(2) EPC. Although the Board pointed out in the oral proceedings that the amendments might contravene this article there is a basis for the amendments in the application as filed.

(vii) The amendments to claim 1 of the seventh auxiliary request do not contravene Article 123(2) EPC. The additional feature of the request was contained in claim 5 as granted.

(viii) Claim 1 of the eighth auxiliary request is a combination of claims 1, 3, 5 and 16 as granted. It is therefore not open to the appellant/opponent to attack this claim on the basis of Article 123(2) EPC since it had not attacked this combination in the patent as granted on the basis of Article 100(c) EPC.

The subject-matter of claim 1 of this request involves an inventive step. The method features of the claim are those which lead to a shrink-fit. However, it has already been explained that a shrink-fit would not have been obvious to the skilled person so that also the method features which lead to a shrink-fit are not obvious. It has also already been explained with respect to the first and second auxiliary requests why respectively the features of at least 40% desiccant by weight and the materials of the insert and container body not being compatible are not obvious to the skilled person. The shrink-fit method in particular allows incompatible materials to be used.

VIII. The arguments of the appellant/opponent may be summarised as follows:

(i) The product of claim 1 of the main request lacks novelty over D3. In particular, in the embodiments of figures 3, 5 and 7 of D3 it is only possible to keep the insert in position if it has been moulded as a shrink-fit. It is to be noted that adhesion between polymers is rare and does not even necessarily occur between polymers which have the same chemical composition but different molecular weights (cf. minutes of the oral proceedings before the opposition division, section 8.2). Also, the skilled person knows that the desiccants mentioned in D3 have low coefficients of thermal expansion and thus will contract less on cooling than the compositions used for the container body which contain only thermoplastic polymers. This

view is further supported by D26 and by the declaration of Mr Judek dated 5 May 2002 wherein there is an experiment that is shown on page 6 which shows that a shrink-fit would occur.

(ii) The subject-matter of claim 1 of the first auxiliary request does not involve an inventive step. D3 is the nearest prior art document. Starting from D3 the problem to be solved is how to retain an insert as an integral part of the container even when it will not bind with the container material. To solve this problem the skilled person would consider D16. D16 shows how a shrink-fit can secure chemically dissimilar plastics (cf. column 3, lines 40 to 48). Moreover, from his general knowledge the skilled person knows that a shrink-fit is a sure way of obtaining a tight joint.

Also, starting from D4 or D14 the subject-matter of claim 1 of this request lacks an inventive step.

(iii) The subject-matter of claim 1 of the first auxiliary request does not involve an inventive step. Although D3 does not mention the percentage of desiccant in the insert no values are excluded, in particular values above forty percent are not excluded. There is no evidence of any incompatibility arising out of the loading of desiccant.

(iv) The subject-matter of claim 1 of the second auxiliary request does not involve an inventive step. Polypropylene is a material which is

commonly used for container bodies. In D3 it is mentioned that polystyrene or polyethylene can be used for the insert thermoplastic so that it is likely that the materials used by the skilled person will be incompatible.

(v) The subject-matter of claim 1 of the third auxiliary request does not involve an inventive step. There must be some upper limit to the percentage of desiccant since there needs to be some thermoplastic material to bind the desiccant together. The maximum value of seventy-five percent as specified in the claim has no special significance.

(vi) As pointed out by the Board in the oral proceedings the amendments to claim 1 of the sixth auxiliary request contravene Article 123(2) EPC. There is no original disclosure in the application as filed that the insert and container body may be co-molded into a unitary body when such materials are incompatible.

(vii) Claim 1 of the seventh auxiliary request as amended contravenes Article 123(2) EPC for the same reasons as for claim 1 of the sixth auxiliary request.

(viii) The amendments to claim 1 of the eighth auxiliary request do not comply with Article 123(2) EPC. In the application as originally filed the feature that the container body is constructed from polypropylene was only disclosed in combination with the insert being constructed from

polyethylene as set out on page 6, lines 6 to 10. According to claim 1 of this request the container body is constructed from polypropylene whereas the insert is constructed of thermoplastic, i.e. any thermoplastic, which was not disclosed in combination with the body specifically constructed from polypropylene.

The subject-matter of claim 1 of this request does not involve an inventive step. The method features of the claim are those which lead to a shrink-fit. However, it has already been explained that a shrink-fit would be obvious to the skilled person so that also the features which lead to a shrink-fit are obvious, whereby the features specified in the claim are no more than those which are normal for this process. It has also already been explained with respect to the first and second auxiliary requests why respectively the features of at least 40% desiccant by weight and the materials of the insert and container body not being compatible would be obvious to the skilled person.

Reasons for the Decision

Main request

1. *Novelty*

1.1 The appellant/opponent principally argued lack of novelty of the subject-matter of claim 1 based on D3. The parties agreed that the features of the preamble of

claim 1 are known from this document. The Board is also of this opinion. The only feature in dispute therefore is the feature of the characterising portion of the claim according to which "said insert (200) is fixed to said container body (12) by a shrink-fit of said container body (12) about said insert (200)".

1.2 The appellant/opponent argued that this feature is a method feature in a product claim and as such should not be taken into account since the product so produced is identical to products produced by other methods such as by a press-fit. The Board cannot agree with the appellant/opponent in this respect. A press-fit means that the insert and the container body are produced separately and then brought together subsequently. A shrink-fit means that the container body is produced *in situ* on the insert. The *in situ* production will leave identifiable correspondences between the inner surface of the container body and the outer surface of the insert. Moreover, it was shown in the declaration of Mr Grossmann dated 9 June 2005 in the footnote on page 5 that with a shrink-fit there is a small amount of melt bonding producing an initial resistance. Such an initial resistance would not be present in a press-fit. The appellant/proprietor has supplied evidence to show that the feature of the shrink-fit is not just the result of a method step but results in distinctive features in the device, whereas the appellant/opponent has just made the allegation that there are no distinctive features, without backing it up with evidence. The Board concludes therefore that this feature is a product feature which must be taken into account when assessing the novelty of the claim.

1.3 The appellant/opponent also argued that this feature was implicitly disclosed in D3. D3, in column 4, lines 13 to 21, discloses a method of producing the container disclosed therein in which the container body is formed by moulding it about the insert. To produce a shrink-fit from the moulding procedure either the two bodies are cooled together with the outer body shrinking more than the inner body during cooling or the inner body remains cold during the moulding and the outer body shrinks onto it upon cooling.

D3 indicates in column 2, lines 46 and 47, that the insert may be formed from polystyrene, polyethylene or polypropylene. The Board notes, however, that D3 is silent regarding the outer material and is silent regarding the temperature of the inner body during the moulding of the outer body. It cannot therefore explicitly be derived from the disclosure of D3 that a shrink-fit will inevitably result from the moulding procedure. It is clear that there are many possible choices for the material of the outer body of D3 and also that there is more than one way for the skilled person to effect the moulding process generally mentioned therein. Since there is more than one way for carrying out the method there is no implicit disclosure of any particular way.

1.4 The argument of the appellant/opponent as to what the skilled person would do in carrying out the teaching of D3 is not convincing. The appellant/opponent argued that the skilled person would automatically select one of the materials disclosed for the insert as a material for the container body and that the presence of the desiccant material in the insert would ensure that the insert

would shrink less than the container body thereby producing a shrink-fit. There is however no reason to suppose this would be the case. Since the material requirements for the container body are different to those of an insert there is no reason for the skilled person to choose the same material for both purposes. Also, the quantity of desiccant in the insert is not disclosed in D3 so that no assumptions can be made regarding how much the insert would shrink on cooling.

1.5 The appellant/opponent considered further that the fact that the insert in the cap in D3 had no shoulder to hold it in place, unlike the insert in the container, meant that it must be held by a shrink-fit and that this would therefore also apply to the insert in the container body.

This argument of the appellant/opponent relies on the assumption that the materials used for the cap and insert of D3 are incompatible. As already explained above there is no information in D3 regarding the material of the cap or the container. If the materials were compatible then the insert could be held in place by melt fusion with the cap during moulding.

The appellant/opponent had supplied as evidence a declaration by Mr Judek concerning experiments that he carried out. However, those experiments used specific materials whereas D3 does not disclose the material for the container body and gives a choice of materials for the insert. The experiments are not therefore based on the disclosure of D3 and hence their results cannot give any information as to whether a shrink-fit is implicitly disclosed in D3.

1.6 In D14, on which the appellant/opponent has also relied, desiccant material is positioned between inner and outer permeable walls of a container. The walls are formed from thermoplastic material. However, there is no further information about the materials or their relationships during the manufacture of the container so that it is not possible to deduce that a shrink-fit relationship will necessarily have arisen during manufacture. D14 therefore does not disclose the feature of the characterising portion of claim 1.

1.7 In D16, on which the appellant/opponent has further relied, there is no disclosure of a desiccant material. There is a reference in column 3, lines 43 and 44, to a glass-filed polyphenylene oxide. However, it is not stated that the glass is desiccant and glass is not necessarily desiccant. Therefore, at least the feature of claim 1 that the insert is formed from desiccant entrained thermoplastic is not disclosed in this document.

1.8 None of the documents relied upon by the appellant/opponent discloses all the features of claim 1 of this request. Therefore, the subject-matter of claim 1 is novel in the sense of Article 54 EPC.

2. *Inventive step*

2.1 The closest prior art document is D3.

As already explained above with respect to novelty the container of claim 1 is distinguished over the disclosure of this document by the feature that "said insert (200) is fixed to said container body (12) by a

shrink-fit of said container body (12) about said insert (200)".

2.2 The problem to be solved by this feature is how to retain an insert as an integral part of the container even when it will not bind thereto.

2.3 Shrink-fitting is a well known way of binding two components together. Commonly an exterior component which circumvents an interior component is attached thereto by fitting it whilst in a heated state so that when the exterior component cools it shrinks and grips the interior component. A common example of this is the fitting of metal tyres on the wheels for railway wagons. This method of attachment is therefore one which the skilled person would consider as a matter of routine.

When considering the manufacture of the container disclosed in D3 the skilled person is required to make a choice of materials for both the container and the insert. The skilled person also knows that whenever differing materials are co-moulded there is a question of the relative shrinkage. Either they may not form together an associated structure if the inner component shrinks more than the outer, or there are stresses formed in the outer component due to greater shrinkage compared to the inner which may be disadvantageous. The skilled person is thus led to consider the shrinkage of the container body relative to the insert. The skilled person would therefore realise that the body should shrink such as to grip the insert since otherwise there would be a risk of the insert being left loose inside the container, which would not be desirable. The skilled

person would thus arrive in an obvious manner at the feature of the characterising portion of claim 1.

2.4 Therefore, the subject-matter of claim 1 of the main request does not involve an inventive step in the sense of Article 56 EPC.

First auxiliary request

3. *Inventive step*

3.1 Claim 1 of this request has the extra feature compared to claim 1 of the main request that the insert has at least forty percent desiccant to thermoplastic by weight. The amount of desiccant, and hence its percentage relative to the thermoplastic material, will be chosen based on the intended use. Apart from the necessity for a minimum amount of thermoplastic material to provide the binding for the desiccant material there is no upper limit on the amount of desiccant.

There is no prejudice for the skilled person against the claimed range since it is known from, for example, D4 that the percentage of desiccant in a moisture absorbent composition suitable for use with a container (see abstract) can vary from 5% (approx.) to 80% (see column 2, lines 44 to 51). Also, in D9 a composition including a thermoplastic polymer is disclosed having 20 to 50% desiccant (see page 2, lines 17 to 24). The claimed range of values for the percentage of desiccant therefore overlaps the usual values. No special effect has been demonstrated to have effect within the claimed range. The argument of the appellant/proprietor that the loading of desiccant leads to incompatibility between

the insert and container materials has not been backed up by any evidence.

3.2 The provision of this feature would therefore be obvious to the person skilled in the art so that the subject-matter of claim 1 of the first auxiliary request lacks an inventive step.

Second auxiliary request

4. *Inventive step*

4.1 Claim 1 of this request has the extra feature compared to claim 1 of the first auxiliary request that the materials of construction of the insert and the container body are not compatible.

When choosing the materials for the insert and the container body for the container known from D3 the skilled person will take account of their respective functions. For the insert the plastics material in which the desiccant is held will be chosen, amongst other reasons, for its ability to allow water vapour to pass through it since this is essential for the embedded desiccant to function. The container body on the other hand will preferably not allow the passage of water vapour since the interior should remain dry and will need to have structural stability. The materials selected to perform these functions are therefore likely to be different and hence there is a reasonable possibility that they will not be compatible.

There is no prejudice for the skilled person against using incompatible materials since as shown with respect

to the main request the shrink-fit method of securing the insert is an obvious method and this method is also applicable to incompatible materials.

It was pointed out by the appellant/proprietor that incompatible materials have an advantage in that they allow for easier recycling since the different materials can be separated which is important for recycling. However, this is a bonus effect which occurs where the materials have already been selected for other reasons. Moreover, it is well known that separability is important for recycling so that the skilled person would know to provide incompatible materials for this purpose.

4.2 The subject-matter of claim 1 of the second auxiliary request therefore lacks an inventive step.

Third auxiliary request

5. *Inventive step*

5.1 Claim 1 of this request has the extra feature compared to claim 1 of the second auxiliary request that the insert has 40-75 percent desiccant to thermoplastic by weight, i.e. the upper limit of 75% has been added. It is, however, clear that there must be an upper limit since otherwise the insert would consist only of desiccant with nothing to bind it. The figure 75% is not associated with any special effects and is, for example, close to the upper limit of 80% disclosed in D4 (see column 2, lines 44 to 51). This feature would therefore be obvious to the skilled person and does not produce any synergistic effect together with the other distinguishing features of the claim.

5.2 The subject-matter of claim 1 of the third auxiliary request therefore lacks an inventive step.

Sixth auxiliary request

6. *Article 123(2) EPC*

6.1 Claim 1 of this request has the extra feature compared to claim 1 of the third auxiliary request that the insert and the container body are co-molded into a unitary body.

In the application as originally filed there were references to a "unitized" body which were subsequently amended to a "unitary" body. This was the case for claim 6 as originally filed which was dependent only on claim 1. There were also references to a unitized body in the application as originally filed on page 3, line 1, where there is reference to the body being produced by co-molding. On page 3, line 22, reference is made to the result of co-molding and melding. It is also mentioned on page 3, lines 32 to 34, with respect to the means for forming the container. In the paragraph from page 6, line 23 to page 7, line 2, it is explained how the co-molding causes the materials to blend and form a unitized container. On page 7, lines 13 to 15, it is explained that a unitized container body can be obtained "provided that the base thermoplastics of each are compatible". There is a reference in the application as filed to the incompatibility of the materials in the paragraph on page 6, lines 6 to 22 wherein the shrink-fit attachment is described and mentioned to be "primarily when the materials of construction of the

insert 200 and container body 12 are not compatible". On page 7, lines 26 to 29, of the application as originally filed it is indicated that the differing moisture impermeabilities of the insert and container body may lead to their construction from incompatible materials.

There is thus no direct and unambiguous disclosure in the application as filed that the insert and container body may be co-molded into a unitary body when their materials are incompatible. On the contrary, there is the specific indication on page 7, lines 13 to 15 that a unitary body can only be formed when the materials are compatible.

6.2 The amendment to claim 1 of the sixth auxiliary request therefore contravenes Article 123(2) EPC.

Seventh auxiliary request

7. *Article 123(2) EPC*

Claim 1 of this request has the extra feature compared to claim 1 of the sixth auxiliary request that the container body is constructed from polypropylene. Since the claim also contains the same combination of features which was considered to contravene Article 123(2) EPC in the case of claim 1 of the sixth auxiliary request the same views expressed with respect to claim 1 of that request apply to claim 1 of the present request.

The amendment to claim 1 of the seventh auxiliary request therefore contravenes Article 123(2) EPC.

Eighth auxiliary request

8. *Article 123(2) EPC*

Claim 1 of this request is a combination of claims 1, 3, 6 and 16 as granted. The appellant/opponent argued that the feature that the container body is constructed from polypropylene contravened Article 123(2) EPC on the basis that this feature was only disclosed in the application as originally filed in combination with the insert being constructed from a base of polyethylene which is, moreover, not specified in the claim. The appellant/proprietor argued that this ground should not be admitted against this claim because this claim was contained as such a combination in the patent as granted and Article 100(c) EPC had not been a ground of opposition.

In claim 6 of the application as originally filed the feature of the container body being constructed from polypropylene was claimed without a simultaneous requirement that the insert is constructed from a base of polyethylene. The deficiency now alleged in claim 1 of the present request would therefore already have been present in claim 6 as granted. To have any chance of success - be it dependent upon the approval of the patent proprietor - the appellant/opponent should have included the ground under Article 100(c) EPC at the latest in its notice of appeal pursuant to Article 10b(1) Rules of Procedure of the Boards of Appeal. The appellant/opponent did not do this with the result that the ground must now be seen as late filed.

Since the appellant/proprietor has not given its agreement to the admission of the ground the Board does not admit the ground.

9. *Inventive step*

9.1 Claim 1 of this request, which is for the method of manufacturing a container, essentially has the extra features compared to claim 1 of the **second** auxiliary request of the method steps which lead to a shrink-fit, as well as the feature that the container is made from polypropylene. It is well-known to use polypropylene for a container material so the provision of this feature is obvious to the skilled person. The method steps specified in the claim are those which lead to a shrink-fit. However, already with respect to the main, first and second auxiliary requests the Board has explained why the provision of a shrink-fit would be obvious to the skilled person.

9.2 The subject-matter of claim 1 of the eighth auxiliary request therefore lacks an inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The appeal of the patent proprietor is dismissed.

3. The patent is revoked.

The Registrar: The Chairman:

G. Nachtigall H. Meinders