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- as to the identity of the inventor (Rule 4.17(i))
- of inventorship (Rule 4.17(iv))

Published:

- with international search report (Art. 21(3))
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(54) Title: PREFORM AND CONTAINER FOR CONTAMINABLE PRODUCTS AND METHOD FOR THE MANUFACTURING THEREOF

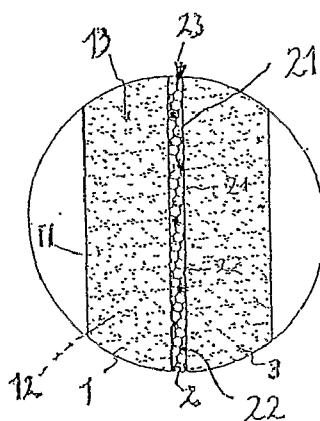


Fig. 10

(57) Abstract: The application relates to a preform for a container intended for containing products therein, consisting of at least one layer made of a blend (13, 23) of a plastic material (11) with additives (12, 22) incorporated in it, characterized in that said additives are made of a material that has a higher glass temperature than said plastic material (11), thus conferring improved thermal properties to said blend (13, 23), when compared to same properties of the plastic material (11, 21). The application further relates to a method for manufacturing a container intended for containing products therein, by the injection moulding of a preform (10, 20) followed by blowing it into a container, made of a blend (13) of a plastic material with additives (12) incorporated in it, characterized in that said additives are made of a material that has a higher glass temperature than said plastic material, thus conferring improved thermal properties to said blend, when compared to same properties of the plastic material.



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**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/BE2008/000092

**A. CLASSIFICATION OF SUBJECT MATTER**

INV. B29B11/14  
ADD. B29B11/08      B29C49/06      B29C49/22      B29C49/64

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
B29B B29C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95/16554 A (CONTINENTAL PET TECHNOLOGIES [US]) 22 June 1995 (1995-06-22)	1-30, 37-41, 47
Y	page 9, paragraph 3 page 10, paragraphs 1,3; figures	42-46
X	US 2003/001311 A1 (COLLETTE WAYNE N [US] ET AL) 2 January 2003 (2003-01-02)	1-30, 37-41, 47
Y	paragraphs [0037], [0111], [0112]; figure 13A	42-46
Y	EP 0 928 683 A2 (HNA HOLDINGS INC [US]) 14 July 1999 (1999-07-14)	42-46
	paragraph [0128]	
	-/--	

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/BE2008/000092

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2006/099700 A2 (RESILUX [BE]; DIERICKX WILLIAM [BE]) 28 September 2006 (2006-09-28) claims 13,14	42-46
A	----- US 5 250 333 A (MCNEELY GERALD W [US] ET AL) 5 October 1993 (1993-10-05) column 2, line 20 - column 2, line 25 -----	1-30, 37-47

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/BE2008/000092

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:  
  
1-30, 37-47
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

## 1. claims: 1-19, 37-41, 47

Method for manufacturing a container and preform for a container, said preform consisting of at least one layer made of a blend of a plastic material with additives, characterized by a reduced thermal shrinkage by increasing the glass temperature value  $T_g$ .

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## 2. claims: 1, 20-30, 37, 47

Method for manufacturing a container and preform for a container, said preform consisting of at least one layer made of a blend of a plastic material with additives, characterized by a multilayer structure comprising an intermediate core layer acting as a barrier layer.

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## 3. claims: 1, 31-37, 47-48

Method for manufacturing a container and preform for a container, said preform consisting of at least one layer made of a blend of a plastic material with additives, characterized by a certain amount of fragmented metal in said blend.

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## 4. claims: 1, 37, 42-46

Method for manufacturing a container and preform for a container, said preform consisting of at least one layer made of a blend of a plastic material with additives, characterized by the neutralizing action of said additives.

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## 5. claim: 49

Device for asepticizing a set of containers characterized in that existing linear filling lines usually used for the filling of bottles made of polyethylene are used to fill bottles made of blended PET in the normal operating conditions, with the process fully in line.

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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/BE2008/000092

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