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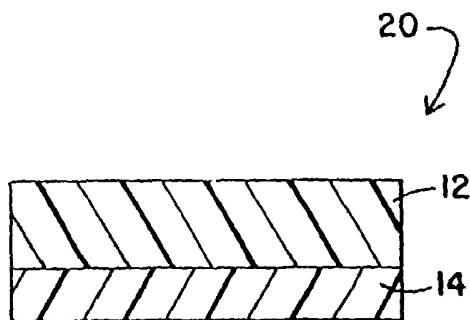
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09/526,775 16 March 2000 (16.03.2000) US
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16 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MULTIPLE LAYER FILM OF A NEW NON-PVC MATERIAL



(57) Abstract: The present invention provides a multilayer film (10). The film (10) has a first layer (12) of a blend of a first component selected from the group of: (1) ethylene and  $\alpha$ -olefin copolymers having a density of less than about 0.915 g/cc, (2) ethylene copolymerized with lower alkyl acrylates, (3) ethylene copolymerized with lower alkyl substituted alkyl acrylates and (4) ionomers, the first component being present in an amount from about 99% to about 55% by weight of the blend, a second component in an amount by weight of the blend from about 45% to about 1% and consists of one or more polymers of the group: (1) propylene containing polymers, (2) polybutene polymers, (3) polymethylpentene polymers, (4) cyclic olefin containing polymers and (5) bridged polycyclic hydrocarbon containing polymers; a second layer (4) attached to the first layer (12); and the film (10) has a modulus of elasticity when measured in accordance with ASTM D882 of less

than about 60,000 psi, an internal haze when measured in accordance with ASTM D1003 of less than about 25%, an internal adhesion ranking of greater than about 2, a sample creep at 120°C under 27 psi loading of less than or equal to 150% for a film having a thickness of from about 5 mils to about 15 mils, and the film (10) can be heat sealed into a container (30) having seals (34) wherein the seals (34) remain intact when the container (30) is autoclaved at 121°C for one hour.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/08598

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08L23/08 C08L23/16 B32B27/32 B32B33/00

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)

IPC 7 C08L B32B

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, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 01 18112 A (BAXTER INT) 15 March 2001 (2001-03-15) page 13, line 5-7 -page 23, line 1-15	1,9-15
A	page 5, line 28 -page 6, line 2; claims 40,56,64,67,68	18,28-35
X	WO 95 13918 A (BAXTER INT) 26 May 1995 (1995-05-26)	1
Y	page 9, line 5 -page 10, line 1-25-33; claims 1,3,9,10,26-28; figure 1	16-18,35
X	WO 97 22655 A (GRACE W R & CO) 26 June 1997 (1997-06-26) page 13, line 1-8 -page 15, line 3-11-22-30-32 page 3, line 1-17 -page 12, line 3-9; claims 1,2,10,15,17	1,16-18, 35
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 Further documents are listed in the continuation of box C. Patent family members are listed in 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

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\*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.

\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

27 September 2002

Date of mailing of the international search report

09.10.02

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 468 768 A (GRACE W R & CO) 29 January 1992 (1992-01-29) claim 9 ---	16-18, 35
A	EP 0 636 473 A (ALKOR GMBH) 1 February 1995 (1995-02-01) claims 1,6,7 ---	1
X	US 4 401 536 A (LUNDELL EDWIN O ET AL) 30 August 1983 (1983-08-30) cited in the application column 5, line 23-32-63 -column 8, line 21; table II column 1, line 37-38-67 -column 4, line 29-31-49-54; claims 1,2,4; example 3 ---	1,2, 16-19, 21,35
X	DATABASE WPI Section Ch, Week 199730 Derwent Publications Ltd., London, GB; Class A17, AN 1997-327855 XP002215059 & JP 09 131837 A (MITSUI TOATSU CHEM INC), 20 May 1997 (1997-05-20) abstract ---	1
A	US 4 479 989 A (MAHAL MOHAN S) 30 October 1984 (1984-10-30) claims 1,7,8,13 ---	1,2,17, 18,21,35
A	EP 0 634 270 A (MITSUI PETROCHEMICAL IND ;OTSUKA PHARMA CO LTD (JP)) 18 January 1995 (1995-01-18) claims 1,9,10 ---	1,2,18, 21
A	US 5 272 210 A (GALANTE NICHOLAS R) 21 December 1993 (1993-12-21) claims 1,7 -----	1,17,18, 35

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 01/08598

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 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 all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
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.:
  
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.
- 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: 1-8, 16-27, 35

- |                                 |  |
|---------------------------------|--|
| (1) a blend composition part 1: |  |
|                                 | or/and                                 |
| or/andb) EEA                    | (2) (E/lower alkyl acrylates)          |
| (c) EMA                         | (3) (E/lower alkyl methacrylates), and |

a blend composition part 2:  
PP,

in heatsealable, sterilizable, irradiated, elastic & flexible, transparent compositions for multilayered films.

Among the first mentioned objects, an EEA-PP blend has been searched and retrieved.

## 2. Claims: 1-8, 16-17

The blend combination 1(d), ionomers, with 2(b), polybutene polymers in the claims characterized by the properties as defined in claim 1.

## 3. Claims: 1-8, 16-17

The blend combination 1(d), ionomers, with 2(c), polymethylpentene polymers in the claims characterized by the properties as defined in claim 1.

## 4. Claims: 1-8, 16-17

The blend combination 1(d), ionomers, with 2(d-e), cyclic olefin containing polymers and/or bridged polycyclic hydrocarbon containing polymers in the claims characterized by the properties as defined in claim 1.

## 5. Claims: 18-27, 35

The blend combination 1(d), ionomers, with 2(b), polybutene polymers in the claims which are crosslinked by irradiation.

## 6. Claims: 18-27, 35

The blend combination 1(d), ionomers, with 2(c), polymethylpentene polymers in the claims which are crosslinked by irradiation.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

7. Claims: 18-27, 35

The blend combination 1(d), ionomers, with 2(d-e), cyclic olefin containing polymers and/or bridged polycyclic hydrocarbon containing polymers in the claims which are crosslinked by irradiation.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/08598

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