



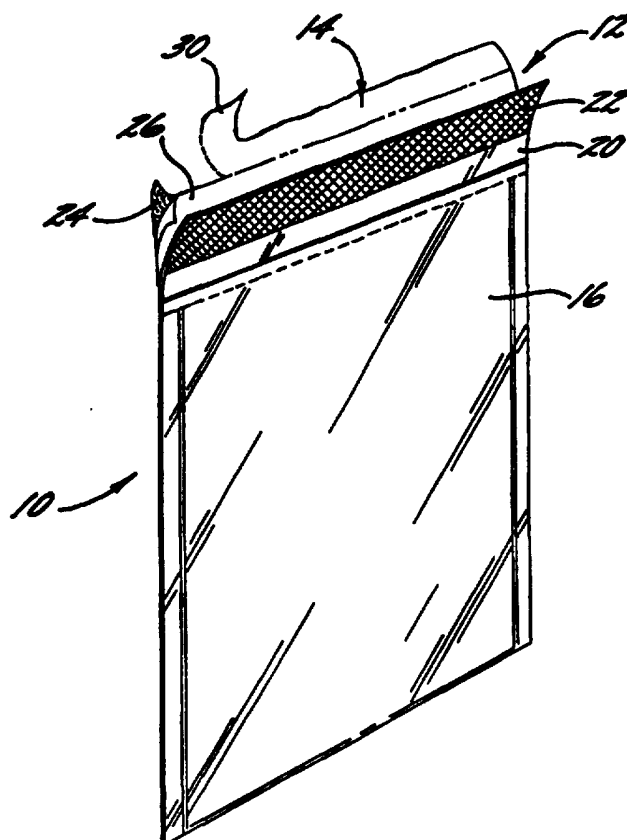
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(60) Parent Applications or Grants (63) Related by Continuation US 388,136 (CON) Filed on 13 February 1995 (13.02.95) US 285,639 (CIP) Filed on 2 August 1994 (02.08.94)			
(71) Applicant (for all designated States except US): TRIGON PACKAGING CORPORATION [US/US]; 6812 - 185th Avenue, N.E., Redmond, WA 98052 (US).			
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(54) Title: TAMPER EVIDENT SEAL AND TAPE

(57) Abstract

A tape or label for sealing a container that provides visual evidence if the seal is forced open or cooled below a breakdown temperature. The tape includes a plastic strip (20), a layer of ink (22) printed on a surface of the plastic strip, and a layer of pressure-sensitive adhesive (24). The tape can be incorporated into a bag (10) for sealing the bag closed. The tape includes an ink layer that is sandwiched between the plastic strip and the adhesive layer. The adhesive can be secured to portions of a bag to seal it closed. If the seal is forced open, the ink layer visibly delaminates from the plastic strip. The adhesive layer and the plastic strip are chosen to have different rates of shrinking when cooled, so that when the tape is cooled below its breakdown temperature, the ink layer delaminates. In an alternative embodiment of the tape, two layers of ink are printed onto the plastic strip. The first layer of ink is clear and is printed onto the untreated plastic strip in a pattern. The second layer of ink is opaque and is printed uniformly over the plastic strip and the clear ink after the plastic strip is treated.



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INTERNATIONAL SEARCH REPORT

Inter nal Application No
PCT/US 95/09803

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 B65D33/34

//B65D101:00

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 6 B65D G09F B31D

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO,A,93 00269 (TRIGON CAMBRIDGE LTD) 7 January 1993	1,2,6,7, 9,14-21, 34,35, 39,40, 50,51, 63-65
Y	see page 2, line 32 - page 3, line 6; claim 13; figures	4,37,38, 46,48
A		3,8,27, 56
Y	GB,A,2 243 825 (R.P.SUNMAN) 13 November 1991 see abstract; figures	4,37,38, 46,48
X	EP,A,0 396 428 (LAWSON MARDON FLEXIBLE LTD) 7 November 1990 see column 3, line 46 - line 52	1,4,21, 46,63
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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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.

& document member of the same patent family

Date of the actual completion of the international search

22 March 1996

Date of mailing of the international search report

27.03.96

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 95/09803

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB,A,2 003 449 (PHARMACHEM CORP) 14 March 1979 ---	9,10,42, 43
A	GB,A,2 202 823 (MARDON WRAPPINGS LTD) 5 October 1988 ---	
A	FR,A,2 317 178 (DECOFLEX) 4 February 1977 see page 3, line 26 - line 33 ---	22,52
A	FR,A,2 597 405 (DAIMATSU KAGAKU KOGYO) 23 October 1987 see abstract; figures ---	22,52
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A	WO,A,91 18377 (AMBLEHURST LTD) 28 November 1991 ---	
A	EP,A,0 349 160 (MINNESOTA MINING & MFG) 3 January 1990 -----	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 95/09803

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 B-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.

Invention 1. Claims 1-21,34-51,63-65

A tamper evident seal as well as a tamper evident tape having additional means for providing a permanent indication of tampering with said seal by cooling said sealing seal/tape below a breakdown temperature.

Invention 2. Claims 22-33,52-62

Method of forming a tamper evident seal as well as a tamper evident tape.

The only feature common to all inventions is represented by the "tamper evident seal as well as a tamper evident tape". The search as revealed that this only common feature is not novel since it is disclosed in document WO 93 00269.

It is clear from the above definitions of each of the different inventions that the problems to be solved are different, and thus it does not exist a single general inventive concept between the above mentioned inventions 1 and 2.

Thus this only common feature among the above mentioned inventions 1 and 2 is not a special technical feature within the meaning of PCT rule 13.2, since it makes no contribution over the prior art.

Consequently it appears that claims 1,19,34,63 and 22,52 do not satisfy the requirement of unity of invention.

The partial search has been carried out for the invention first mentioned in the claims.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 95/09803

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INTERNATIONAL SEARCH REPORT

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International Application No

PCT/US 95/09803

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