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(54) **MULTILAYER TUBE AND RELATED MACHINE AND METHOD FOR MAKING IT**

(57) This invention relates to a multilayer tube (1) having an internally hollow, cylindrical shape extending round a longitudinal axis (X) and having, in cross section transverse to the longitudinal axis (X), a multilayer thickness defined by at least two layers (2, 3, 4) superposed at respective overlapping areas (5).

The overlapping areas (5) are glued to each other at first glue zones (5a) and have second, reduced or zero glue zones (5b) configured and/or intended to receive a plurality of perforations (6).

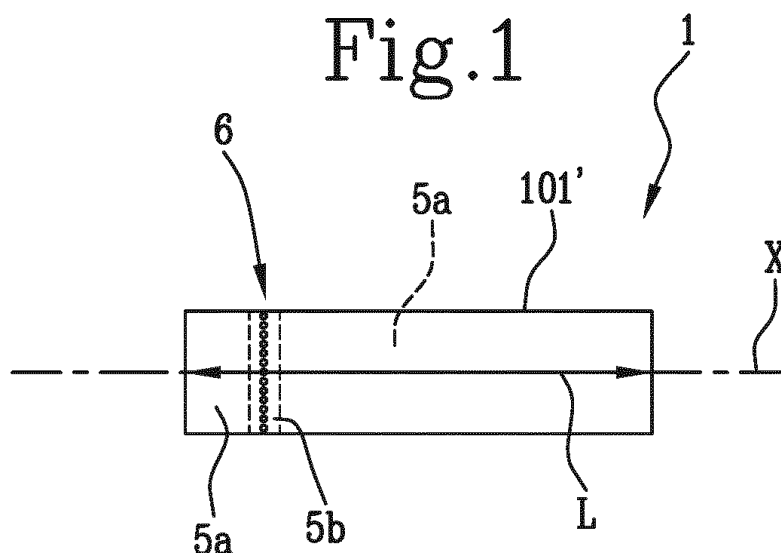
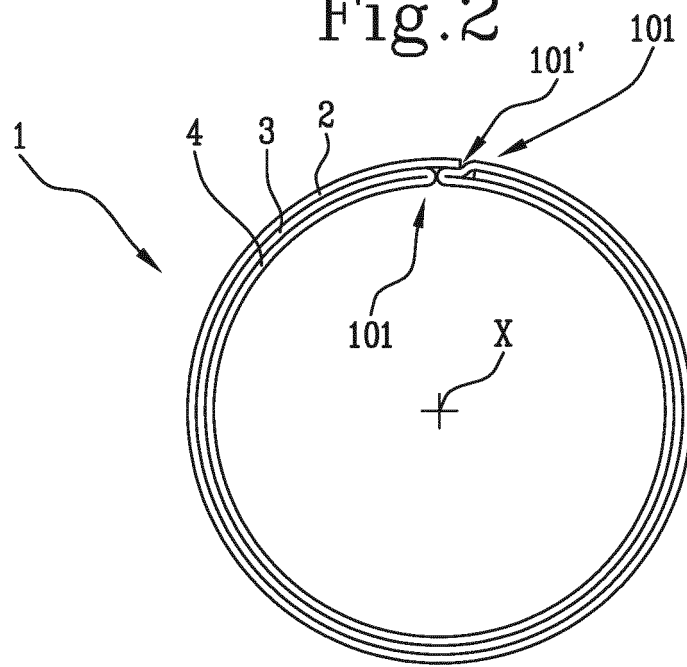


Fig.2





EUROPEAN SEARCH REPORT

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Y	* page 2, line 26 - line 33; figure 6 * * page 3, line 96 - line 114; figures 2, 3 *	4-13,15, 16, 20-23, 25,26	B31C3/04 B31C5/00
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 17 July 2020	Examiner Sundqvist, Stefan
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
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Application Number

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3(completely); 7(partially)

A multilayer tube having perforations in certain areas.

2. claims: 4, 5, 8-13, 20-23(completely); 7, 18, 19, 27, 28(partially)

A multilayer tube having glued zones and reduced or zero glue zones obtained by longitudinally wrapping a multilayer web (independent claims 4 and 5 and claim 7 as dependent thereupon). Methods and machines for making a multilayer tube having glued zones and reduced or zero glue zones by longitudinally wrapping a multilayer web (independent claims 8, 20 and 21 and claims 9-13, 22, 23, 27 and 28 as dependent thereupon).

3. claims: 6, 14-17, 24-26(completely); 7, 18, 19, 27, 28(partially)

A multilayer tube having glued zones and reduced or zero glue zones obtained by helically wrapping a single layer web (independent claim 6 and claim 7 as dependent thereupon). Methods and machines for making a multilayer tube having glued zones and reduced or zero glue zones by helically wrapping a single layer web (independent claims 14 and 24 and claims 14-19 as dependent thereupon).

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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