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(54) **Roller coating**

(57) A method for applying a seamless coating of a surface-modifying material to a product roller 12 by transfer of the material to the product roller (12), from an application means (16, 18, 32, 36, 40, 54, 56, 58, 60), to produce the seamless coating. Gravure rollers (18),

slot dies (54), falling curtains or ribbons (56), jets and sprays (60) may be used to deposit the material on the product roller (12). Dipping may also be used. In one embodiment the coating is applied as a plurality of coatings, which are applied without drying the previous coating before application of a subsequent coating.

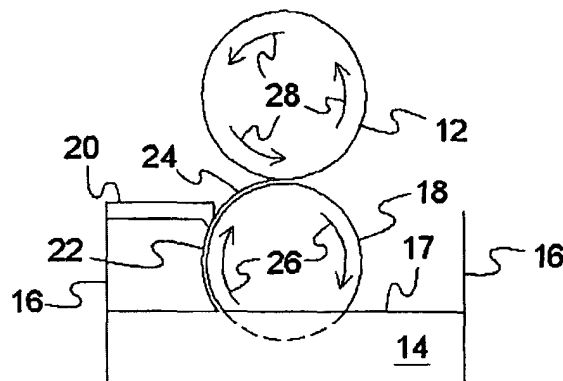


FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 03 01 3406

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
X	EP 1 158 365 A (DU PONT DEUTSCHLAND) 28 November 2001 (2001-11-28)	1-3,6, 10,12-15	B05D7/00 B05D1/28
Y	* paragraphs '0033!', '0041!'; claim 1; example 1 * * paragraph '0007! *	4,5,9	B05D5/08 B05D1/02 B05D1/12
X	US 5 133 998 A (OKAZAKI HIROSHI ET AL) 28 July 1992 (1992-07-28)	1-3,6, 11,13-15	
Y	* column 4, paragraph 1; claims 1,5; example 1 *	4,5,9	
X	US 5 617 191 A (ENDO SHUICHI ET AL) 1 April 1997 (1997-04-01)	1,2,6, 11,14,15	
Y	* column 7, lines 24-41; claims 1,2; figure 7 *	4,5,9	
X	US 3 656 999 A (LUNDSAGER CHRISTIAN B) 18 April 1972 (1972-04-18)	1	
Y	* column 3, lines 57-60; claims 1,2 *	9	
Y	US 5 677 008 A (AOYAMA YUJI ET AL) 14 October 1997 (1997-10-14) * figures 1-4 *	4,5	TECHNICAL FIELDS SEARCHED (Int.CI.7) B05D
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X	DE 17 78 758 A (WOLFEN FILMFAB VEB) 26 August 1971 (1971-08-26) * figure 1 *	1	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 2 September 2004	Examiner Connor, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims 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 the first ten claims.

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:
- INVENTIONS 1, 4, AND 5
- ☐ 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:



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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: 1-6,9-15

method according to claim 1 wherein the applying means
comprise rollers

2. claims: 1,9-15

method according to claim 1 wherein the applying means are a
slot die

3. claims: 1,9-15

method according to claim 1 wherein the applying means are a
falling curtain

4. claims: 1,9-15

method according to claim 1 wherein the applying means are a
spray device

5. claims: 1,7-15

method according to claim 1 wherein the applying means are
an immersion container

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 01 3406

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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02-09-2004

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82