

Title (en)

Device for creating coated paper, cardboard or other strips of fibrous material with at least one thermo-sensitive layer and method for operating such a device

Title (de)

Vorrichtung zur Erzeugung von beschichteten Papier-, Karton- oder anderen Faserstoffbahnen mit mindestens einer thermosensitiven Schicht und Verfahren zum Betreiben einer derartigen Vorrichtung

Title (fr)

Dispositif de production de bandes de matière fibreuse de papier, de carton ou autres revêtues dotées au moins d'une couche thermosensible et procédé de fonctionnement d'un tel dispositif

Publication

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Application

EP 09168032 A 20090818

Priority

DE 102008041422 A 20080821

Abstract (en)

The device comprises means (7) forming a first function layer having a first coating unit in the form of a multi-layered curtain coating tool with a delivery nozzle, and a first subordinated drying system, means (8) forming a second function layer having a second coating unit in the form of multi-layered curtain coating tool with a delivery nozzle, and a second subordinated drying system, and a traction device. A first web guiding path and/or a second web guiding path and means (14) for bypassing the coating unit are equipped under heating the second coating unit. The device comprises means (7) forming a first function layer having a first coating unit in the form of a multi-layered curtain coating tool with a delivery nozzle, and a first subordinated drying system, means (8) forming a second function layer having a second coating unit in the form of multi-layered curtain coating tool with a delivery nozzle, and a second subordinated drying system, and a traction device. A first web guiding path and/or a second web guiding path and means (14) for bypassing the coating unit are equipped under heating the second coating unit. The means for bypassing the coating unit comprises conducting- and/or guiding elements for guiding the carrier webs that are arranged and guided in order to produce a branching (11) in the web guidance behind the first function layer under formation of the first web guiding path in the form of a bypass for coating unit and a junction of the both web guidance path. The drying system of the second means is arranged downstream to the means for bypassing the second coating unit. The means for bypassing the second coating unit are arranged and implemented to produce a branching of the web guidance in the connection on the means forming the first function layer and the junction of the first means before the second drying system of the second means forming the second function layer. The second drying system is arranged in the bypass and the means for web guidance are arranged and formed in order to guide the carrier web in the direction through the second drying system under formation of a further web guidance path. The traction device is arranged before the second coating unit and the branching. The coating units and the drying systems are formed and arranged in the means forming the function layer. The carrier web is freely implemented by a return of the curve direction in longitudinal direction of the device observed within the means forming single function layer. The coating unit and the drying system are arranged in the means forming the function layer in a horizontal plain. The coating unit and the drying system are arranged in means forming the function layer in vertical plane transferred to each other. The means forming the function layers are arranged in longitudinal direction of the device and are implemented in such a way that the guiding of the carrier web is carried out in longitudinal direction of the device freely from a return of the curve direction. The means forming the function layers are arranged in a horizontal plane. The drying capacity of the drying systems are selected in such a way that it is suitable to adjust a predefined dry content through a multilayer coating produced by the coating unit. The bypass is equipped in connection between the first means forming the function layer, and the coating unit of the second means forming the function layer. In the bypass, a web-turning apparatus is arranged. The coating units comprise a coating nozzle extending itself in the width direction of the carrier web in the form of a multi-layered curtain coating tool. The coating nozzle is connected over a coating medium supply with a coating medium supply system. The multi-layered curtain coating tool is assigned two coating medium supply system for different coating medium, which are alternatively coupled. The coating medium supply system consists of a thermosensitive coating medium, and has a tear-off edge on which the coating medium is subjected on the surface to be coated and the tear-off edge is formed from a slit nozzle or slide nozzle or a slide plate assigned the coating nozzle. An independent claim is included for a method for operating a device for the production of coated paper, cardboard or other fiber material web.

Abstract (de)

Die Erfindung betrifft eine Vorrichtung (1) zur Erzeugung von beschichteten Papier-, Karton- oder anderen Faserstoffbahnen (10) mit mindestens einer thermosensitiven Schicht (4, 6) als Funktionsschicht durch Auftragen mindestens eines thermosensitiven Auftragsmediums auf eine Trägerbahn (T) mittels mindestens einer eine Funktionsschicht bildenden Einheit (7, 8), umfassend eine Auftragseinrichtung (A1, A2) und eine Trockenstrecke (TS1, TS2). Erfindungsgemäß ist dadurch gekennzeichnet, dass die erste Funktionsschicht bildende Einheit (7) eine Auftragseinrichtung (A1) in Form eines Mehrlagen-Vorhangauftragswerkes mit mindestens einer Abgabedüse (CC1, CC2) und eine nachgeordnete Trockenstrecke (TS1) umfasst und die zweite Funktionsschicht bildende Einheit (8) ebenfalls eine Auftragseinrichtung (A2) in Form eines Mehrlagen-Vorhangauftragswerkes mit mindestens einer Abgabedüse (CC3, CC4) und eine nachgeordnete Trockenstrecke (TS2) umfasst, wobei ein erster Bahnführungsweg (IIa) unter Einbeziehung der Auftragseinrichtung (A2) der zweiten Funktionsschicht bildenden Einheit (8) sowie ein zweiter Bahnführungsweg (IIb) und Mittel (14) zur Umgehung der Auftragseinrichtung (A2) vorgesehen sind. Die Erfindung betrifft auch ein Verfahren zum Betreiben der Vorrichtung (1).

IPC 8 full level

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CPC (source: EP US)

D21H 23/48 (2013.01 - EP US); **B05C 5/005** (2013.01 - EP US)

Citation (applicant)

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Citation (search report)

- [A] EP 1538262 A1 20050608 - VOITH PAPER PATENT GMBH [DE]
- [A] WO 2004001133 A2 20031231 - VOITH PAPER PATENT GMBH [DE], et al
- [A] EP 1736321 A1 20061227 - VOITH PATENT GMBH [DE]

Cited by

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