

Title (en)

Roll cover made of fibre reinforced composite material

Title (de)

Faserverbund Walzenbezug

Title (fr)

Revêtement de rouleau en matière composite renforcée de fibres

Publication

**EP 1612329 A1 20060104 (DE)**

Application

**EP 05103508 A 20050428**

Priority

DE 102004025116 A 20040521

Abstract (en)

The cover(8) material is based on fibers(5) in a matrix(6) and the compound composition continuously varies depending on the area of the roll surface(14) to which the compound is applied. Fillers(9) of different types may also be included in the composition and the latter and/or the fiber(5) content and/or matrix(6) type and/or filler may continuously vary. Composition may vary in the axial and/or radial(7) direction of the roll body(4) onto which the compound is applied. Fiber type, content and/or diameter and/or length distribution and/or orientation may be varied. At least one fiber type may comprise loose fibers of specific length distribution and/or contains fibers which are randomly embedded in the matrix. Fibers have a length distribution of 1-10mm, preferably 1-3mm and/or more preferably 3-10mm. The matrix can comprise one or more different resin types. Matrix composition can be altered by varying the mixing ratio of at least one resin and/or hardener. Fillers can be used to influence wear resistance and/or viscosity and/or surface tension and/or conductivity. Filler particle size can also be varied. An independent claim is included for a process for manufacturing the claimed roll cover. A compound comprising fibers and a matrix is applied onto specific positions on the roll and the composition of matrix and fibers is varied according to the axial and/or radial position on the roll.. The same step is repeated at different positions on the roll.

IPC 8 full level

**D21G 1/02** (2006.01); **B29C 45/14** (2006.01); **B29C 70/30** (2006.01); **D21F 3/08** (2006.01); **F16C 13/00** (2006.01)

CPC (source: EP)

**D21F 3/08** (2013.01); **D21G 1/0233** (2013.01)

Citation (applicant)

- WO 9409208 A1 19940428 - BELOIT TECHNOLOGIES INC [US]
- US 6319185 B1 20011120 - SOHL CARSTEN [DK]
- DE 19925421 A1 20001207 - VOITH SULZER PAPIERTECH PATENT [DE]
- US 2002045523 A1 20020418 - ZIMMERMANN LOTHAR [DE], et al
- EP 0487447 A1 19920527 - HILTI AG [LI]

Citation (search report)

- [X] US 6319185 B1 20011120 - SOHL CARSTEN [DK]
- [X] DE 19925421 A1 20001207 - VOITH SULZER PAPIERTECH PATENT [DE]
- [A] EP 0487477 A1 19920527 - VALMET PAPER MACHINERY INC [FI]
- [A] US 2002045523 A1 20020418 - ZIMMERMANN LOTHAR [DE], et al
- [A] EP 0924337 A2 19990623 - VOITH SULZER PAPIERTECH PATENT [DE]

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