

## Textile coating

*This PatentAlert is focused on new coating patents and applications published in 2010. The attention is especially drawn to the use of biological (active) substances in coatings for different applications. We have also looked for new and sustainable textile coating processes. In this respect, the application of Fibroline France is remarkable in its use of an electric field to apply a coating layer. The following excerpts are divided in two parts:*

1. Applications
2. Patents

### APPLICATIONS:

#### **US 2010/0233146**

COATINGS AND SURFACE TREATMENTS HAVING ACTIVE ENZYMES AND PEPTIDES

Asignee: Reactive Surfaces (US)

Published 2010-09-16

Disclosed herein are a materials such as a coating, an elastomer, an adhesive, a sealant, a textile finish, a wax, and a filler for such a material, wherein the material includes an enzyme such as an esterase (e.g., a lipolytic enzyme, a sulfuric ester hydrolase, an organophosphorus compound degradation enzyme), an enzyme that degrades a cell wall and/or a cell membrane component (e.g., a lysozyme, a lytic transglycosylase, a peptidase), and/or a biocidal or biostatic peptide.

Also disclosed herein are methods of decontaminating a surface comprising such a material from a chemical substrate of an enzyme such as a lipid or an organophosphorus compound, as well as reducing the growth of a microorganism on or within such a material.

#### **US 2010/0093933**

SUBSTITUTED GUAR PROTEIN EXTRACTS AND PRODUCTION/APPLICATIONS THEREOF

Asignee: Rhodia Chimie (FR)

Published 2010-04-15

A variety of products are obtained from modified guar protein extracts, for example, cosmetic or pharmacological or plant protective compositions or domestic care agents containing such products; these are particularly suitable for treating and/or modifying and/or coating the skin, hair, hard and textile surfaces and, notably, plant leaf surfaces.

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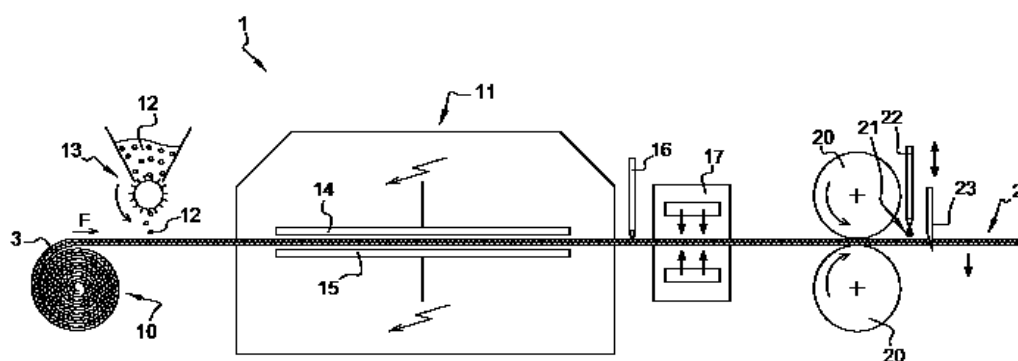
### US 2010/173549

METHOD FOR MAKING A TEXTILE COATING AND TEXTILE COATING

Asignee: Fibroline France (FR)

Published 2010-07-08

A textile coating is made from a web of fibres including a first area and a second area. The first area is a cohesion area where the fibres of the web are integrated into a tight entanglement holding the fibres and located on only a portion of the thickness of the web. A method for making the textile coating includes: applying an alternating electric field to the web having at least one face bearing a heat-meltable powdery binder, thereby introducing said powdery binder into the web, so as to concentrate the binder at the first area, then melting the binder by supplying heat, and leaving the binder to cure or causing it to cure.



### WO 2009/095594

IMPERVIOUS VASCULAR PROTHESIS AND METHOD FOR PREPARING SAID PROTHESIS

Asignee: Universite Lille (FR)

Published 2010-03-11

The invention relates to a vascular prosthesis made of a textile part that is made impervious using synthetic polymers. The prosthesis of the invention includes a water-repellent coating including at least one water-repellent synthetic polymer applied onto a substrate for making said substrate water-repellent, and a water-proofing coating covering the water-repellent substrate and including at least one biocompatible, hemocompatible and cytocompatible synthetic polymer. According to a second aspect, the invention relates to a method for making an impervious vascular prosthesis according to the invention. The method comprises the step a) of applying at least one water-repellent synthetic polymer on the textile part, followed by the step b) of applying at least one water-proofing synthetic polymer in order to obtain a water-proofing coating covering the water-repellent textile part.

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### PATENTS

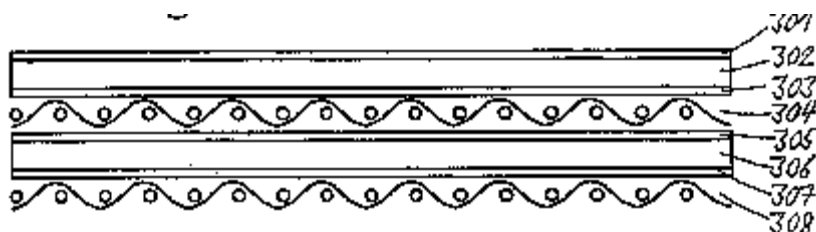
#### CA 2435544

CONVEYER BELT WITH A POLYMER SURFACE COATING CONTAINING AN ANTIMICROBIAL ADDITIVE

Asignee: Habasit (CH)

Published 2010-04-06

A conveyor belt according to the invention comprises a traction layer (3) in the form of a woven textile that is provided with a polymer surface coating. The surface coating comprises a base layer (2) and a functional surface layer (1). The functional surface layer (1) comprises an antimicrobial additive and is substantially thinner than the base layer (2). The division of the surface coating into a base layer (2) and a functional surface layer (1) allows to achieve in the area of the conveying zone, with a lower amount of antimicrobial additive and thus in a less expensive way, a just as high concentration, or with the same amount of additive a substantially higher concentration and thus a higher effectiveness against microorganisms.



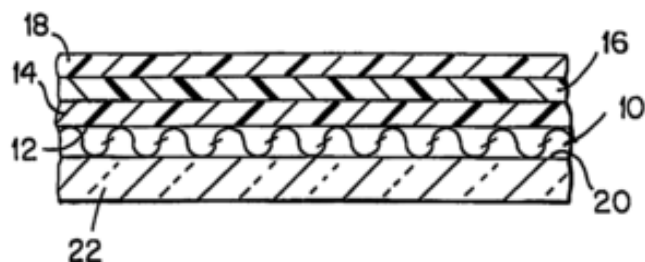
#### US 7651118

POLYVINYL CHLORIDE COATED FABRICS FOR USE IN AIR BAGS

Asignee: Bradford Industries (US)

Published 2010-01-26

The invention is directed to textile fabrics for use in air bags and side curtains having at least one coating layer of polyvinyl chloride thereon. The textile fabric can be a flat sheet, such as used in driver side air bags, or a multi-layered woven textile having preconfigured air-holding cavities therein for use in side curtains such as are installed in sport utility vehicles (SUVs). In certain embodiments of the invention coating layers of elastomeric polyurethane may be applied to the textile fabric in addition to the coating layer of polyvinyl chloride. In certain instances, the textile fabrics are coated on one side only, and in others they may be coated on both sides, i.e., on opposed first and second surfaces. In either case, the polyvinyl chloride coatings, whether alone or in combination with other polymeric coatings, provide the air bags or side curtains with superior air-holding characteristics.



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### US 7727583

METHOD FOR THE PRODUCTION OF STRUCTURED SURFACES

Asignee: BASF (DE)

Published 2010-06-01

Provided is a process for producing a structured surface possessing a high level of hydrophilicity, wherein the process involves: coating a surface with a mixture to produce the structured surface, wherein the mixture includes: particles (a) having a number average particle diameter of from 0.1  $\mu\text{m}$  to 10  $\mu\text{m}$ ; and particles (b) having a number average particle diameter of from 5 nm to 0.5  $\mu\text{m}$  and a 20° C. surface energy of greater than or equal to 80 mN/in, and wherein the mixture exhibits a bimodal particle diameter distribution of particles (a) and particles (b). The mixture may optionally include an aqueous liquor, an emulsifier, a binder, an adhesion promoter, a thickener, and/or a pigment. Also provided is a structured surface produced by the process. A non-limiting example of the structured surface produced by the process is a structured textile surface.

### EP 1534888

METHOD FOR COATING AN ARCHITECTURAL TEXTILE WITH AT LEAST ONE LAYER OF A SILICONE ELASTOMER USING AN AQUEOUS SILICONE EMULSION AND AN ARCHITECTURAL TEXTILE WITH SUCH A COATING

Asignee: Ferrari Tissage (FR)

Published 2010-04-28

Production of architectural silicone membranes comprises coating an architectural textile with an aqueous emulsion of a polyaddition-crosslinkable polyorganosiloxane composition containing 0.005-10 wt.% of an adhesion promoter which is a protective hydrocolloid or a hydroxy- and ammonium-functional silane or POS, and crosslinking the product to give a coating/textile dry weight ratio below 0.2. Production of architectural silicone membranes comprises: (a) coating an architectural textile with an aqueous emulsion containing a polyorganosiloxane (POS) with at least two silicon-bonded C2-C6 alkenyl group, a POS with at least three silicon-bonded hydrogen atoms, 0.005-10 wt.% of an adhesion promoter which is a protective hydrocolloid or a hydroxy- and ammonium-functional silane or POS, a catalyst, a surfactant, optionally a POS resin with at least two alkenyl groups, a crosslinking inhibitor, optionally a pH-fixing agent, optionally one or more formulation aids and optionally a filler; and (b) crosslinking the product to give a coating/textile dry weight ratio below 0.2. An Independent claim is also included for a membrane produced as above.