

Biological – natural – green materials

METHOD OF PRODUCING A BIO-BASED CARPET MATERIAL

Patent number: US6962636 (B2)

Publication date: 2005-11-08

Applicant(s): URETHANE SOY SYSTEMS COMPANY I [US]

The present invention includes a method for making a bio-based carpet material by providing tufts, a backing, a pre-coat, and a backing material wherein the pre-coat includes the reaction product of a pre-coat A-side having a pre-coat isocyanate and a pre-coat B-side and the backing material includes the reaction product of a backing material A-side having a backing material B-side. The pre-coat B-side and the backing material B-side may include a petroleum based polyol; a vegetable oil, cross-linker, and a catalyst; or a transesterified polyol.

BIO-BASED CARPET MATERIALS

Patent number: WO2008073808 (A1)

Publication date: 2008-06-19

Applicant(s): DOW GLOBAL TECHNOLOGIES INC [US]; JENKINES RANDALL [GE]; PERRY THOMAS [GE]

The present invention discloses the use of castor oil and castor oil derivatives for use in polyurethane formulations for the production of products for the carpet industry. Process for the production of such products is also disclosed.

BIO-SHEET MATERIAL AND ITS MANUFACTURING METHOD AND APPARATUS

Patent number: US2008141931 (A1)

Publication date: 2008-06-19

Inventor(s): LEE JONG-HAK [KR]

The present invention provides a bio-sheet material, and a method and an apparatus of manufacturing the bio-sheet, which has pliability or easiness of cutting by unifying a mixture of at least one of healthful natural minerals or plants such as ocher, jade, tourmalin, etc., using fiber material, paper, etc., as a medium, which can be maintained in an original shape at natural or heat drying without generating separation of the mixture, and which can shorten the manufacturing

BIODEGRADABLE NATURAL FIBRE COMPOSITE MATERIAL

Patent number: EP1958762 (A1)

Publication date: 2008-08-20

Applicant(s): WK NATURFASER TECHNOLOGIE GMBH [AT]

The natural bonded fiber material, consisting of a natural fiber textile of straw fiber (4) and at least one other natural fiber, e.g. a flat fiber (5), and a matrix of biodegradable material such as polyactide (6), has the natural fiber textile and the matrix heated to bond as a hybrid textile material. The matrix comprises 20-30% of the end product.

Biological – natural – green materials

TREE BAST FIBRE AND PROCESSING METHOD THEREFOR

Patent number: EP1942212 (A1)

Publication date: 2008-07-09

Applicant(s): TIANWEI TEXTILES SCI TECH SHEN [CN]

Taught is tree bast fiber, along with a method for processing the same, the fiber being a natural textile fiber made of bark of trees except for mulberries and paper mulberries. The length of the fiber is 5mm-65mm. The fineness of the fiber is 0.3-2.5D. The intensity of the fiber is 0.275-0.582 N/tex. The breaking elongation rate of the fiber is 3%-7%. The method comprises the steps of peeling, sorting, degumming, skimming, drying, preserving, tanning, grinding, carding, baking, boxing and classifying, and packaging. The textile fiber is produced from a resource abundant in nature. The fiber has similar performance to bast fiber, higher intensity than cotton fiber, good dyeing properties, and wide application prospects. It can be blended with other natural fibers, man-made fibers and recycled fibers to form fiber yarn for various purposes.; This method changes waste into a commodity, and brings about great economic and social benefits.

DEVICE FOR PROCESSING FIBROUS RAW MATERIALS AND THE METHOD OF FIBROUS PLANTS PROCESSING

Patent number: WO2008063091 (A1)

Publication date: 2008-05-29

Applicant(s): INST OF NATURAL FIBRES [PL]; INST TEROTECHNOLOGY RADOM [PL]; KOZLOWSKI RYSZARD [PL]; KONCEWICZ WANDA [PL]; WOJTYSIAK JAN [PL]; PODSIEDLIK WLADYSLAW [PL]

The subjects of the invention are: a device for processing fibrous raw materials and the method of fibrous plant raw materials processing. The device is used for specific processing of fibrous plants raw materials such as flax, hemp, kenaf, jute, ramie and others. The device enables controlled water flow and controlling pH value, temperature and the process time. The method enables using physico-chemical phenomena, especially osmosis, which run inside the stems in contact with water. The solution enables production of natural fibre of exceptionally good usable properties.

FIBROUS WEB FOR A TEXTILE MATERIAL AND TEXTILE MATERIAL WITH SUCH A FIBROUS WEB

Patent number: EP1908869 (A2)

Publication date: 2008-04-09

Applicant(s): BAUR FRIEDRICH [DE]

Claimed is a non-woven fabric whose fibres consist of a mixture of wool (4A) and a man-made fibre (4B). In its initial condition the man-made fibre has a core with a high-temperature melting point within a mantle with a lower melting point. The wool fibre (4A) is preferably pre-treated using the so-called Kroy-Hercosette process. The natural wool fibres are yielded by e.g. sheep, camels, cashmere goats, or cotton. The man-made fibre is a polymer created by fermentation of a vegetable sugar mass. The mantle is applied to the core by a heat process. The mantle melting point is about 130[deg] C and that of the core about 160[deg] C.

Biological – natural – green materials

ECRAN PERMEABLE A LA VAPEUR D'EAU ET IMPERMEABLE A L'EAU ET SON PROCEDE DE FABRICATION

Patent number: CA2678209 (A1)

Publication date: 2008-09-18

Applicant(s): SOPREMA SOC PAR ACTIONS SIMPLI [FR]

The invention relates to a steam permissive and water non-permissive screen, particularly a sub-roof screen, a rain-proof screen, an air-proof screen or the like. The screen (1) is characterised in that it mainly comprises a non-woven fabric made of a mat or a web of a majority of natural fibres (2), preferably vegetable fibres, that has been submitted to a binding operation by pressurised liquid jets, or hydrobinding, and to a hydrophobation process.

MODIFIED POLYACRYLONITRILE FIBER AND METHOD OF PREPARING THE SAME

Patent number: US2009259010 (A1)

Publication date: 2009-10-15

Applicant(s): HIKING GROUP CO LTD [CN]

A modified polyacrylonitrile fiber and its preparation process and use are disclosed. A biological protein is used as a modifier of polyacrylonitrile fiber. The weight content of fiber components is as follows: the acrylonitrile monomer 50.0-98.8%, the initiator 0.1-0.4%, the biological protein 1.0-50.0%. The preparation process of the modified polyacrylonitrile fiber comprises the following steps: 1. preparing the biologic protein solution, 2. preparing spinning dope of the modified polyacrylonitrile fiber, 3. preparing the modified polyacrylonitrile fiber. The filament titer of the modified fiber is 30-100 dtex. The fiber is suitable for making synthetic hair product such as hairpieces, and resembles well natural human hair.

COMPOSITIONS FOR IMPREGNATING PAPER PRODUCTS AND NATURAL FABRICS AND METHODS, PROCESSES AND ASSEMBLAGES THEREFORE

Patent number: MX2008003799 (A)

Publication date: 2008-09-30

Applicant(s): ECOLOGY COATINGS INC [US]

Disclosed are compositions which are curable using ultraviolet and visible radiation. In addition, the disclosed compositions are suitable for applying to fiber substrates, such as, but not limited to, paper product and natural fiber fabrics. In addition, methods are disclosed for applying the composition to fiber substrates, or at least a portion of the fiber substrates, and curing of the applied composition to obtain partially or fully cured compositions. Furthermore, articles of manufacture incorporating fully cured compositions are disclosed, including, for example paper; such articles of manufacture are resistant to water, including retention of structural integrity, print and brightness upon prolonged exposure to water. Also disclosed are methods, processes, production lines, assemblages, and factories which incorporate these curable compositions

FLEXIBLE SURFACE HAVING A UV CURABLE WATERPROOFING COMPOSITION

Patent number: US2008026662 (A1)

Publication date: 2008-01-31

Applicant(s): ECOLOGY COATINGS INC [US]

Disclosed are thixotropic compositions that are curable using ultraviolet and visible radiation. In addition, methods of applying the compositions to fiber substrates such as paper are described, as are methods of curing the coated products. Partially or fully water-resistant articles made using these compositions, such as snow melting mats, windshield protectors, and freezer defrosting sheets are also disclosed.

Biological – natural – green materials

USE OF FORMALDEHYDE-FREE AQUEOUS BINDERS FOR SUBSTRATES

Patent number: US2009252962 (A1)

Publication date: 2009-10-08

Applicant(s): BASF AG

The present invention relates to the use of formaldehyde-free aqueous binders having a broad molecular weight distribution for substrates, said binders comprising (A) from 0 to 100% by weight of an ethylenically unsaturated acid anhydride or ethylenically unsaturated dicarboxylic acid whose carboxylic acid groups can form an anhydride group, or mixtures thereof, (B) from 100 to 0% by weight of an ethylenically unsaturated compound, (C) at least one polyfunctional crosslinker or mixtures thereof, and (D) from 1-80% by weight of an aqueous polymer dispersion, the polymers of A) and B) obtained by free-radical addition polymerization, when classified in a coordinate system by way of their average molecular weight M_w and their polydispersity, being situated in the area above a straight line which is defined by the linear equation $y=1.25x+20\ 000$ and has been shifted in y direction parallelwise by at least $+3\ 000$, the x axis denoting the weight-average molecular weight and the y axis the polydispersity times $10\ 000$. The invention further relates to the binders themselves and also to their use for, for example, moldings, mats or boards, especially for fibrous and particulate substrates such as fiber webs, glass fibers, rockwool, reclaimed cotton, natural fibers or synthetic fibers.

FLOOR CLOTH FOR TUFTED CARPET, HAS TUFT YARNS E.G. POLYPROPYLENE BASED TUFT YARN, THERMALLY ANCHORED TO CLOTH BY FUSING TUFT YARNS TOGETHER AT REAR SIDE OF CLOTH, WHERE CLOTH IS PRODUCED FROM NON-MELTING NATURAL FIBERS OR TAPES

Patent number: NL1034840 (C1)

Publication date: 2009-06-22

Applicant(s): ZEFFEX VENTURES B V [NL]

The cloth has multiple tuft yarns e.g. polypropylene, polyester or polyamide-based tuft yarn, thermally anchored to the cloth by fusing the tuft yarns together at rear side of the cloth that is produced from non-melting natural fibers or tapes e.g. cotton, wool or jute.

METHOD FOR MANUFACTURING A NON-WOVEN FABRIC BASED ON NATURAL WOOL, PLANT FOR PERFORMING SUCH METHOD AND PRODUCT OBTAINED BY SUCH METHOD

Patent number: EP2049719 (A2)

Publication date: 2009-04-22

Applicant(s): ORSA S R L [IT]

A plant and method for manufacturing a wool-based, non-woven fabric is disclosed, wherein the steps are carried out of providing flocks based on natural wool fibres, of carrying out a carding and veiling of said flocks based on wool fibres, up until obtaining a veil based on wool fibres, and of carrying out needle-punching on said veil based on wool fibres, wherein at the end of the needle-punching a water-jet interleaving step is also carried out. Some products which may advantageously be obtained through such method and plant are also disclosed

Biological – natural – green materials

DYEING TEXTILES WITH NATURAL DYES, INVOLVES DYEING WITH ALKALINE DYE SOLUTION CONTAINING MORDANT, KEEPING THE TEXTILE ON A ROLLER, MAKING UP THE DYE SOLUTION WITH ALKALI AND MORDANT, AND REDYEING THE TEXTILE

Patent number: FR2919880 (A1)

Publication date: 2009-02-13

Applicant(s): ACCORD MAJEUR SOC PAR ACTIONS [FR]

A method for dyeing textiles with a natural dye (I), involves (a) dissolving (I) in alkali, (b) preparing a mordant, (c) mixing the dye solution and mordant solution and placing them in the vat of a dyeing machine, (d) passing the textile material through the vat, (e) keeping the material on a roller, (f) recovering the dye bath, making it up with mordant and alkali and placing the new bath in a dyeing machine vat, (g) passing the material through the new bath and (h) rinsing the material.