

Nonwovens for industrial applications

JP2009297680 - CLOTH FOR FILTER AND ITS PRODUCTION METHOD

TORAY

Published 2009-12-24

Priority date 2008-06-17 (JP)

JP2009297656 - FILTER ELEMENT

MAHLE FILTER SYSTEMS CO

Published 2009-12-24

Priority date 2008-06-13 (JP)

JP2009285573 - THE PLEAT PRODUCTION METHOD AND FILTER UNIT OF THE FILTER MEDIUM WHICH WAS PROCESSED [MACHINE TRANSLATION]

NITTO DENKO

Published 2009-12-10

Priority date 2008-05-29 (JP)

JP2009276034 - FIBER STRUCTURE FOR EVAPORATION FILTER

NORIKO MAKOTO HASHIMOTO; NAKAYAMA HOMARE (Inventors)

Published 2009-11-26

Priority date 2008-05-19 (JP)

JP2009275327 - THE SPAN BOND NONWOVEN FABRICS AND THE AIR FILTER WHICH USES THAT [MACHINE TRANSLATION]

KUMIKO TSUNEMATSU; YAKAGE YOSHIKAZU; EIITI NISHIURA (Inventors)

Published 2009-11-26

Priority date 2008-05-16 (JP)

WO2009141899 - FELT MATERIAL FOR AIR FILTER

FUJI CORP

Published 2009-11-26

Priority date 2008-05-21 (WO)

A felt material for air filters is provided which is reduced in pressure loss and has high collecting performance. When attached to a dust collector, waste gas treatment apparatus, etc., the felt material can efficiently remove fine soot/dust particles from a high-temperature dust-containing gas. The felt material is a nonwoven structure obtained by uniting by needle punching a carded lap comprising first fibers which are fibrillated flame-retardant organic fibers and supplementary fibers selected from the group consisting of second fibers which are flame-retardant organic fibers having a heat fusion temperature of 250°C or higher or having no melting point and third fibers which are inorganic fibers having high heat resistance. The nonwoven structure is heat-treated to thereby regulate the thickness and density thereof to given values.

JP2009249780 - HEAT-RESISTANT HEAT INSULATION MATERIAL

NAKAMURA HERO; KATSUHARU AOKI (Inventors)

Published 2009-10-29

Priority date 2008-04-09 (JP)

JP2009248000 - PRODUCTION METHOD OF ELECTRET FILTER MEDIUM

SHINITI MINEMURA; HITOSHI TADASHI GOTO; MASAHIKO NAKAMORI; MAKOTO KOBAYASHI SHIN (Inventors)

Published 2009-10-29

Priority date 2008-04-07 (JP)

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JP2009249764 - THE NONWOVEN FABRICS FOR THE FILTER AND THE FILTER WHICH USES THAT [MACHINE TRANSLATION]

MASUDA AI; MASASHI ITOU; YAKAGE YOSHIKAZU (Inventors)
Published 2009-10-29 Priority date 2008-04-07 (JP)

JP2009233645 - FILTER AND ITS PRODUCTION METHOD

KURAREKURAFUREKKUSU CORPORATION
Published 2009-10-15 Priority date 2008-03-28 (JP)

US20090253327 - ANTIMICROBIAL NONWOVEN FILTERS COMPOSED OF DIFFERENT DIAMETER FIBERS AND METHOD OF MANUFACTURING THE SAME

TRIOSYN HOLDING INC
Published 2009-10-08 Priority date 2009-03-11 (US)

The present invention is directed to manufacturing an antimicrobial nonwoven material composed of two or more distinct fibers that are entangled to form a three-dimensional nonwoven web. The individual fiber components of the web are chosen to have properties that impart both excellent filtering capacity and antimicrobial activity to the web. At least one fiber of the composite web is selected to have excellent filtering characteristics. Moreover, at least one fiber of the composite web is selected to be able to incorporate an active agent, such as an iodinated resin, with a sufficient loading capacity and diffusivity such that the active agent can migrate to the surface of the fiber and exert its antimicrobial effect.

JP2009221618 - ELECTRET BODY AND FILTER OF BIODEGRADATION CHARACTERISTIC NONWOVEN FABRICS [MACHINE TRANSLATION]

KURAREKURAFUREKKUSU CORPORATION
Published 2009-10-01 Priority date 2008-03-14 (JP)

US20090241497 - CHEMICAL FILTER AND METHOD FOR PRODUCING THE SAME

NICHIAS CORP
Published 2009-10-01 Priority date 2008-03-25 (JP)

A chemical filter is obtained by pleating a nonwoven fabric, the nonwoven fabric being a spunlace nonwoven fabric prepared by causing fibers to be entangled by a spunlace method, and ion-exchange groups being introduced into the fibers by radiation graft polymerization.

JP2009210072 - EVACUATED INSULATION MATERIAL [MACHINE TRANSLATION]

NIPPON SHEET GLASS CO LTD
Published 2009-09-17 Priority date 2008-03-05 (JP)

JP2009209456 - FILTER NONWOVEN FABRICS

TECH LTD
Published 2009-09-17 Priority date 2008-02-29 (JP)

JP2009197385 - PRODUCTION METHOD OF NONWOVEN FABRICS FOR DISPOSABLE INSULATIVE TOOL [MACHINE TRANSLATION]

SENI ASAHI KASEI CORPORATION
Published 2009-09-03 Priority date 2009-06-01 (JP)

Nonwovens for industrial applications

JP2009195845 - NONWOVEN FABRICS FOR FILTER

TECH LTD

Published 2009-09-03

Priority date 2008-02-22 (JP)

KR20090065496 - AN AEROGEL MANUFACTURING METHOD BY VACUUM EXTRACTION, AND THE AEROGEL THEREFOR, AND AND AEROGEL NON-WOVEN FABRIC MANUFACTURING METHOD, AND THE AEROGEL NON-WOVEN FABRIC THEREFOR, AND THE COMPLEX HEAT INSULATOR USING THE AEROGEL NON-WOVEN FABRIC THERFOR

GWAG JAE CHUL (KR) (*Inventor*)

Published 2009-06-22

Priority date 2009-06-01 (KR)

PURPOSE: Provided are a vacuum extraction type method of manufacturing an aerogel powder, which substantially reduces the cost of a solvent required in the cleaning process and greatly reduces the time required in the manufacturing process, an aerogel powder manufactured thereby, a method of manufacturing an aerogel non-woven fabric, an aerogel non-woven fabric manufactured thereby, and a complex heat insulator using the aerogel non-woven fabric.

CONSTITUTION: A method of manufacturing an aerogel powder comprises manufacturing the aerogel powder by replacing the solvent cleaning process with the vacuum extraction process after the solvent displacement. A method of manufacturing an aerogel non-woven fabric comprises a step of spraying an aerogel solution onto the non-woven fabric in the needle punching step of the process of manufacturing a non-woven fabric. The method further comprises a step of gelling the aerogel solution-coated non-woven fabric, a step of aging the gelled non-woven fabric in an IPA solution, a step of displacing a solvent of the aged non-woven fabric with TMCS, a step of extracting a residual solvent by a vacuum pump, and a step of drying and heat-treating the resulting non-woven fabric. (C) KIPO 2009

JP2009195898 - FILTER

CHISSO CORPORATION

Published 2009-09-03

Priority date 2008-01-21 (JP)

JP2009160510 - HEAT-RESISTANT INCOMBUSTIBLE SMOKE CONSUMING/DEODORIZING FILTER MEDIUM

CERAMICS CRAFT CO LTD

Published 2009-07-23

Priority date 2007-12-29 (JP)

PROBLEM TO BE SOLVED: To provide a low-cost filter medium which has heat resistance and noncombustibility and can remove high-temperature oil mist, combustion smoke, odorous gas or noxious gas by deposition and adsorption.

SOLUTION: This heat-resistant incombustible smoke consuming/deodorizing filter medium is of the following construction. A filter base material is made up of nonwoven fabric the basis weight of which is 50 to 150 g/m², a fibrous material of fine size which is composed of carbon fiber, total aromatic polyamide fiber or phenol resin fiber. In addition, artificial zeolite powder is of such a type that the average particle diameter is 1 to 50 μm, the specific surface area is at least ≥ 100 m²/g and the base substitution capacity (meq/100g) is ≥ 150 mg. Alternatively, inorganic porous powder can be used which has the specific surface area is ≥ 300 m²/g and the base substitution capacity (meq/100g) is ≥ 50 mg. Further, the artificial zeolite powder or the inorganic porous powder, is made to assume a stereostructure by alkali and metallic salts, as an adsorptive powder. Finally, the adsorptive powder is coated and set by a coating material consisting of a siloxane and silanol salt multimolecular weight solution, in the coating weight ratio of 100 to 300 g/m², on the outer surface of the filter base material.

Nonwovens for industrial applications

WO200994452 - A MATERIAL AND METHOD FOR PROVIDING INSULATION AND DRAINAGE TO A FOUNDATION WALL

NIELSEN STEVEN F (US); DELLINGER ALLAN MARCUS (US); CASTLES LINDSAY (US); THOMAS BRYAN (US) (Inventors)

Published 2009-07-30

Priority date 2008-01-22 (US)

A material and method for insulating and providing a drainage path for a foundation wall includes a non-woven thermoplastic board being for insulating and providing a drainage path for a foundation wall. The non-woven thermoplastic board has a thermal resistance of an R-value per inch thickness of at least 1. The non-woven thermoplastic board also has a vertical drainage ability per inch thickness of at least 135 Gallons/Hour/Lineal-Foot/inch at a pressure of 500 pounds per square foot (psf).

JP2009136736 - ELECTRET FILTER MEDIUM AND FILTER UNIT

TOYO BOSEKI

Published 2009-06-25

Priority date 2007-12-05 (JP)

PROBLEM TO BE SOLVED: To provide an electret filter medium and a filter unit with satisfactory interlayer adhesiveness, causing no interlayer exfoliation, developing low pressure loss and high particle collection efficiency, having slow increase of pressure loss in dust-loaded time, long service life, rigidity, excellent pleat workability, low pressure drop in unit working time, excellent dust holding property, thin thickness, little fluffing or dropping of fiber or resin.

SOLUTION: The electret filter medium is formed by integrating a layer formed by bonding a reinforcing net to thermally bonded nonwoven fabric or long fiber nonwoven fabric, with an electret layer consisting of round short fiber by interlacing.

TW200912071 - MICROFIBER SPLIT FILM FILTER FELT AND METHOD OF MAKING SAME

ADORNO MARCELLO CATTANEO; NETO JOSE ANTONIO DE ALMEIDA (Inventors)

Published 2009-03-16

Priority date 2008-01-09 (TW)

A nonwoven felt formed from fluoropolymer film, which is split and fibrillated to form a network structure, and then entangled.

KR20090035813 - FLAME-RETARDED POLYESTER FIBER BOARD AND MENTHOD FOR PRODUCING IT

B & B CO LTD

Published 2009-04-13

Priority date 2007-10-08 (KR)

PURPOSE: A flame-retarded polyester fiber board and a method for manufacturing the same are provided to offer superior fire retardant and absorbing characteristic by using the polyethylene terephthalate fiber as a surface material instead of cloth and non-woven.

CONSTITUTION: A method for manufacturing a flame-retarded polyester fiber board comprises a step for making a first fiber board in which a needle punching process is performed with a pattern needle and a step for combining a second fiber board or a thermal bonded fiber board consisting of polyester short staple having a low melting point and polyethylene terephthalate short staple or the fiber board with the first fiber board. The first and the second fiber board are combined by a melting cohesion, a needle punching, or an adhesive. (C) KIPO 2009

Nonwovens for industrial applications

JP2009120992 - FLAME-RETARDANT NONWOVEN FABRIC

JAPAN VILENE CO LTD

Published 2009-06-04

Priority date 2007-11-15 (JP)

PROBLEM TO BE SOLVED: To provide a flame-retardant nonwoven fabric not only having excellent flame retardancy and tear strength but also not causing delamination at the use.

SOLUTION: The flame-retardant nonwoven fabric is obtained by binding a fiber web comprising ≥ 20 mass% polyphenylene sulfide fiber and a flame-retardant rayon fiber with an adhesive containing a flame retardant and a binder. The binder occupies ≥ 35 mass% of the adhesive. Preferably, the glass transition temperature of the binder is $< +40^{\circ}\text{C}$. The apparent density of the flame-retardant nonwoven fabric is preferably $< +0.25 \text{ g/cm}^3$.

JP2009119327 - LIGHTWEIGHT HEAT-RESISTANT FILTER

KUREHA SENI KK

Published 2009-06-04

Priority date 2007-11-13 (JP)

PROBLEM TO BE SOLVED: To provide a heat-resistant filter which is lightweight, has a low gas permeation resistance, a full life efficiency of $\geq 90\%$, and is excellent in processability and excellent in stability and fire resistance at high temperatures.

SOLUTION: The filter is constituted from a nonwoven fabric prepared by binding a fibrous layer consisting of mixed fibers of heat-resistant staple fibers, high-tenacity fibers, and thermally bondable composite fibers with a flame-retardant resin binder, and has properties including lightness in a basis weight in the range of 70-200 g/m^2 , a bursting strength of $\geq 3.0 \text{ kPa}$, and an initial tensile modulus of $\geq 100 \text{ N/5 cm}^2/100\%$ at 200°C .

JP2009112887 - FILTER MEDIUM, ITS MANUFACTURING METHOD, AND CARTRIDGE FILTER

DAIWABO POYTECH KK; DAIWA SPINNING CO LTD

Published 2009-05-28

Priority date 2007-11-01 (JP)

PROBLEM TO BE SOLVED: To provide a high collection capacity and a long service life by providing features to fiber assembly constituting a filter medium removing foreign matter from fluid.

SOLUTION: The filter medium is formed by laminating at least two or more layers of nonwoven fabric, a first nonwoven fabric at an inlet side of the fluid has a density of 0.05-0.5 g/cm^3 , an average hole diameter of 5-35 μm , and a second nonwoven fabric at an outlet side of the fluid is melt-blown nonwoven fabric with at least one face smoothed. The smoothed face is disposed in the outlet side, the melt-blown nonwoven fabric has a density of 0.15-0.7 g/cm^3 , an average hole diameter of 0.5-20 μm , a maximum hole diameter of 5-30 μm , and a ratio of the average hole diameter of the first nonwoven fabric to the maximum hole diameter of the second nonwoven fabric is 0.5-5 times. The cartridge filter using the filter medium has a high collection accuracy, and demonstrates a long service life even in filtration of fluid mixed with gel-like foreign matter.

AU2008230015 - NON WOVEN INSULATION PRODUCTS

AUSTRALIAN GYPSUM

Published 2009-05-07

Priority date 2007-10-22 (AU)

A method of forming a non woven fibrous product such as insulation. A mat having organic melt fibres and inorganic fibres is formed by a process such as airlay. The mat is cured to form a structure of bonded organic fibres. The curing is controlled to limit bonding between organic and inorganic fibres. The product is a non woven fibrous material having a structure formed by bonded organic fibres and containing non-bonded or relatively weakly bonded inorganic fibres.

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JP2009106824 - NONWOVEN FABRIC FOR AIR FILTER AND AIR CLEANING FILTER

TAPYRUS CO LTD

Published 2009-05-21

Priority date 2007-10-29 (JP)

PROBLEM TO BE SOLVED: To provide a nonwoven fabric used for an air cleaning filter which separately captures dust or microparticles in air, featuring high dust capturing capacity, high dust capturing efficiency and long service life characteristics, and also to provide an air cleaning filter.

SOLUTION: This nonwoven fabric for an air filter is of a melt blow type consisting of a single layer composed mainly of a polyolefin and/or a polyester. In addition, the nonwoven fabric is characterized in that the weight of the resin is 80 to 140 g/m² and the thickness is 0.5 to 1.5 mm, and in that the single layer has a packing gradient. Also, the air cleaning filter etc. are provided.

JP2009102756 - METHOD FOR PRODUCING WARP-WEFT LAMINATED NONWOVEN FABRIC WITH ADHESIVE BELT AND APPARATUS FOR PRODUCING THE SAME

POLYMER PROC RES INST

Published 2009-05-14

Priority date 2007-10-22 (JP)

PROBLEM TO BE SOLVED: To provide means for producing a warp-weft laminated nonwoven fabric including laminating a warp material and a weft material each other so that the fiber axes cross each other, by which the warp-weft laminated nonwoven fabric can be produced in a good product quality without contamination with foreign matters, the process is largely simplified, and has good productivity.

SOLUTION: The means for producing the warp-weft laminated nonwoven fabric includes supplying the weft materials on a circulated traveling conveyer, making a circulated belt to approach a weft web on the conveyer, when the weft materials come to a position overlapping the warp materials, contacting the adhesive surface of the circulated belt with the weft materials to stick the weft materials on the circulated belt, separating the circulated belt to separate the weft materials from the conveyer, and then laminating and bonding the weft materials onto the warp materials, wherein the surface of the circulated belt circulated in a direction crossing the travel direction of the conveyer is an adhesive surface made of a pressure-sensitive adhesive.

DE102008043334 - FUEL I.E. OIL, FILTER FOR DIESEL ENGINE OF VEHICLE, HAS FILTER ELEMENTS THAT ARE LAMINATED TO ASSEMBLE FILTER PART AND CONNECTED WITH EACH OTHER BY BONDING CHEMICAL FIBER MATERIALS AND CELLULOSE FIBER MATERIALS IN FILTER PART

KYOSAN DENKI KK; DENSO CORP

Published 2009-05-07

Priority date 2007-10-31 (JP)

The filter has a filter part comprising a filter element (31), where the element is manufactured from a chemical fiber material i.e. polyester fiber material, a cellulose fiber material and a non-woven material in the form of a sheet. Another filter element is manufactured from other chemical fiber materials with water-repellent characteristics in the form of a sheet. The elements are laminated to assemble the filter part, and are connected with each other by bonding the materials together. An independent claim is also included for a method for manufacturing a filter.

Nonwovens for industrial applications

JP2009090259 - CARTRIDGE FILTER FOR LIQUID FILTRATION

KURASHIKI SENI KAKO KK; JAPAN ATOMIC ENERGY AGENCY

Published 2009-04-30

Priority date 2007-10-12 (JP)

PROBLEM TO BE SOLVED: To provide a cartridge filter for liquid filtration which has both an ion removing capacity and a particle removing capacity, wherein a filtration performance and an ion exchange performance are balanced in a high level.

SOLUTION: The cartridge filter consists of a plurality of non-woven clothes individually having a different function and wound in a pleat shape or a roll shape, and at least one kind of the non-woven clothes is a graft-polymerization non-woven cloth having an ion exchange group by graft polymerization and the other kind is a non-graft-polymerization non-woven cloth smaller in fiber diameter and average pore diameter than the graft-polymerization non-woven cloth. The cartridge filter is made of a plurality of filter materials of a fiber diameter gradient type.

JP2009091689 - FIBER, NONWOVEN FABRIC, BATTERY SEPARATOR USING THE NONWOVEN FABRIC, AND BATTERY AND ION EXCHANGE FILTER

DAIWABO POYTECH KK; DAIWA SPINNING CO LTD

Published 2009-04-30

Priority date 2007-10-09 (JP)

PROBLEM TO BE SOLVED: To provide a fiber having ion exchange property, a nonwoven fabric containing the fiber, having ion exchange property, free from the lowering of the nonwoven fabric strength, and having excellent air permeability, and a battery separator using the nonwoven fabric, and a battery and an ion exchange filter.

SOLUTION: The fiber is obtained by coating the surface of a fiber having at least a polyolefin resin exposed to the fiber surface with a thermosetting resin, and the nonwoven fabric contains the fiber. The thermosetting resin has an ion exchange property and the resin is fixed on the fiber surface by curing the thermosetting resin. The battery separator is formed of the nonwoven fabric. The battery uses the battery separator. The ion exchange filter is formed of the nonwoven fabric.

WO200954349 - POLYIMIDE FIBER MASS, SOUND ABSORBING MATERIAL, HEAT INSULATION MATERIAL, FLAME-RETARDANT MAT, FILTER CLOTH, HEAT-RESISTANT CLOTHING, NONWOVEN FABRIC, HEAT INSULATION/SOUND ABSORBING MATERIAL FOR AIRCRAFT, AND HEAT-RESISTANT BAG FILTER

KANEKA CORP

Published 2009-04-30

Priority date 2007-10-26 (JP)

A polyimide fiber mass which comprises polyimide fibers having an average fiber diameter in the range of 1-100 μm , excluding 1 μm , includes polyimide fibers having a curved shape, and has a bulk density in the range of 1-30 kg/m^3 . This polyimide fiber mass is excellent in heat-insulating performance and sound absorbing characteristics and is lightweight. The polyimide fiber mass can be obtained by a production process comprising: an ejection step in which a high-molecular-resin solution obtained by dissolving a polyamic acid or polyimide in an organic solvent is ejected; and a forming step in which an external force is applied to the ejected high-molecular-resin solution by a gas sent from a direction crossing the ejection direction to thereby fly the ejected solution in the direction of the external force and spin the high-molecular resin into fibers while vaporizing the organic solvent contained in the high-molecular resin solution.

Nonwovens for industrial applications

DE102007000579 - PRESS FELT USEFUL IN A WET PART OF A PAPER MACHINE, COMPRISES TWO SPIRALLY WINDED LAYERS, EACH OF WHICH COMPRISES LAYER STRIPS, WHERE THE SPIRALLY WINDED LAYERS LIE ONE UPON THE OTHER OR LIE ON EACH OTHER

VOITH PATENT GMBH

Published 2009-04-30

Priority date 2007-10-26 (DE)

The press felt useful in a wet part of a paper machine, comprises two spirally winded layers, each of which comprises layer strips, where the spirally winded layers lie one upon the other or lie on each other. The width of the layer strips is smaller than the total width of the layer. The layer strips are arranged with an angle alpha to the direction of the machine in an overlapping manner and have different widths and functions. The layer strips are made of fleeces, lattice structures, non-woven, tissues, knitted fabrics, braided fabrics, thread arrangements, and/or scrim. The press felt useful in a wet part of a paper machine, comprises two spirally winded layers, each of which comprises layer strips, where the spirally winded layers lie one upon the other or lie on each other. The width of the layer strips is smaller than the total width of the layer. The layer strips are arranged with an angle alpha to the direction of the machine in an overlapping manner and have different widths and functions. The layer strips are made of fleeces, lattice structures, non-woven, tissues, knitted fabrics, braided fabrics, thread arrangements, scrim, bunches of threads, and/or permeable or impermeable substrate. The layers differentiate itself from each other in characteristics such as thickness, width, structure, design, material and/or function of the layer. The lattice structures are extruded lattice structures, which consist of optionally vulcanized thermoplastic or thermoplastic elastomer. The lattice structures have weight per area of 100-200 g/m², and pore size and -shape. The layers are made of fleece with a weight per area of 80-160 g/m². The thread arrangements, the scrim or bunches of threads have a predefined parallel longitudinal threads, and a thread density of 85-110 threads per 10 cm width. The fiber titer of the thread fibers is 67-100 dtex. An angular offset of the layer strips is less than or equal to the width of the one of the layer strips, corresponds to the narrower or narrowest width of the one of the layer strips, is equally and largely adjusted over the winded total width of the strips and is 10% of the width of the one of the layer strips. The layer strip has a thickness of less than 1 mm and is formed in a single-layered- or multi-layered manner. Independent claims are included for: (1) a method for producing layer structures useful in a press felt; and (2) a device for producing layer structures useful in a press felt.

JP2009078446 - LAYERED NONWOVEN FABRIC, METHOD FOR MANUFACTURING THE SAME AND METHOD FOR MANUFACTURING FLAME-RETARDANT SOUND-ABSORBING SHEET BY USING THE SAME

KURARAY KURAFLEX CO LTD

Published 2009-04-16

Priority date 2007-09-26 (JP)

PROBLEM TO BE SOLVED: To provide a layered nonwoven fabric which is used suitably to be stuck fast to the back surface of a hood of a car and from which a flame-retardant sound-absorbing sheet having high designability and various surface shapes is manufactured suitably and to provide a method for manufacturing the layered nonwoven fabric and a method for manufacturing the flame-retardant sound absorbing sheet.

SOLUTION: The layered nonwoven fabric is manufactured by entwining a front surface layer with a back surface layer on the interface. The front surface layer consists of a high melting point fiber of specific basis weight and contains a pigment, a resin binder, a flame retardant, a water repellent. The back surface layer consists of a thermal bonding fiber of specific basis weight. The method for manufacturing the layered nonwoven fabric comprises a layering step of the front surface layer on the back surface layer, a coloring step and a fireproofing step. The method for manufacturing the flame-retardant sound absorbing sheet comprises a molding step of interposing a glass wool layer between the back surface layer of the layered nonwoven fabric and a metallic mold and heating the interposed glass wool layer in addition to the above three steps of the method for manufacturing the layered nonwoven fabric.

Nonwovens for industrial applications

CN101403165 - FLAME-PROOF ANTI-AGING DOUBLE-EFFECT SPUN-BONDED NONWOVEN CLOTH

SHANDONG ENGINEERING RES CT FO

Published 2009-04-08

Priority date 2008-10-17 (CN)

The invention provides anti-flaming and anti-aging double effect spunbonded non-woven fabrics which are manufactured by preparing low-melting fat polypropylene and anti-flaming and anti-aging masterbatch according to a certain ratio, with a small quantity of modifier added, based on the spunbonded technology, and after charging, melting, filtering, metering, spinning, drafting and cooling, reticulating, hot rolling, and involution. The product of the invention has not only superior physical properties of spunbonded non-woven fabrics, but also double functional effects of anti-aging and anti-flaming; the anti-flaming effect can meet requirements of standards of BS5852, CTB117-2000, FAR25-853(b), and NFP92-507, and the like; the anti-aging effect can meet operating requirements of harvest cloth for three and a half months and two years of anti-aging operating requirements; the product can be widely applied to the fields of furniture, aircraft interior decorative materials, and roof materials, and the like.

JP2009066534 - PLEAT TYPE FILTER CARTRIDGE FOR LIQUID

ROKI TECHNO CO LTD

Published 2009-04-02

Priority date 2007-09-13 (JP)

PROBLEM TO BE SOLVED: To provide a pleat type filter cartridge for liquid using polymer-based nano-fiber nonwoven fabric, having required level of completeness and pressure resistance, and stably manufacturable.

SOLUTION: The polymer-based nano-fiber nonwoven fabric is sandwiched with support materials and the support materials are pressedly integrated with the nano-fiber nonwoven fabric by laminating to form a filter. Diameters of the support materials serving as the secondary side of the filter are set to 1-10 μm , to enhance the pressure resistance of the polymer-based nano-fiber nonwoven fabric.

WO200941093 - FIBER LAMINATE SHEET, ARTIFICIAL LEATHER UTILIZING THE SAME AND SYNTHETIC FIBER PAPER FOR USE THEREIN

NIPPON PAPER PAPYLIA CO LTD; TRADIK CO LTD

Published 2009-04-02

Priority date 2007-09-25 (JP)

A fiber laminate sheet comprising at least two layers including an upper layer base paper and an underlay fiber layer. The upper layer base paper is a synthetic fiber paper containing polyester staple fibers and polyester binder staple fibers, produced by a wet process. The constituent fibers of the base paper, although glued together by the binder staple fibers, are partially disintegrated by water stream intercrossing. The underlay fiber layer is a fiber sheet of at least one member selected from among a nonwoven fabric, a nonwoven fabric web and a woven knitted fabric. The upper layer base paper and underlay fiber layer are laminated together so that the constituent fibers of the two layers cross each other to thereby attain an integration thereof. Accordingly, when impregnation with an elastic polymer is not effected, there can be obtained a novel fiber laminate sheet of soft texture exhibiting air permeability. On the other hand, when the impregnation is effected, there can be obtained an artificial leather of texture highly close to that of natural leather.

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JP2009061401 - FIBER STRUCTURE FOR FILTRATION FILTER AND METHOD FOR MANUFACTURING THE SAME

GUNZE KK

Published 2009-03-26

Priority date 2007-09-06 (JP)

PROBLEM TO BE SOLVED: To provide a fiber structure for filtration filter where an excellent impurity filtration function is expected by a microfiber containing VdF with ESD process and a method for manufacturing the same that excellently forms the fiber structure for filtration filter with the ESD process.

SOLUTION: A copolymer of VdF and HFP with MFR value of 0.11 g/10 min is prepared as the component of a solution material. It is preferable that the copolymer is a random copolymer with VdF of 75% or more and 92% or less and HFP of 8% or more and 25% or less. Next, the copolymer is dissolved so as to allow a resin concentration in the entire solution material to be 10 wt. % or more and less than 30 wt. % to a volatile solvent. This solution is supplied to an ESD device to obtain a nonwoven fabric 20 (fiber structure for filtration filter) by electrospinning.

EP2058041 - MULTIPLE LAYER, IN PARTICULAR TWO-LEVEL FILTER ELEMENT TO CLEAN A MEDIUM CONTAINING PARTICLES

MANN & HUMMEL GMBH

Published 2009-05-13

Priority date 2007-11-08 (DE)

Multilayer filter for removing solids or liquids from media comprises at least one non-woven glass fiber layer and a nanofiber layer.

CN101392432 - METHOD FOR PRODUCING MELT-BLOWN NONWOVEN DOWN DUAL CONSTITUENT THERMAL INSULATING INTERLINING

WUSHENG GUO (CN) (Inventor)

Published 2009-03-25

Priority date 2008-11-10 (CN)

The invention relates to a method for forming dual-component heat-insulating wadding by combining molten-spraying nonwoven fabrics and down. Specifically, the method comprises the following steps: heating polymer resin slices into molten state, then extruding, measuring and distributing the resin slices evenly to a hole of a spinneret device, and then stretching the resin slices into superfine fiber by hot air. Then the down is adhered with polymer fiber which is treated with fiber-stretching and is still not cured so as to form a net after being distributed by loosening, velvet-supplying and velvet-filling, and then a receiver and a finishing reel wind the net into the wadding. The invention adds down material into the existing molten-spraying production process, which can improve the heat-insulating rate and rebound elasticity of the wadding and can improve the transverse and longitudinal tensile strength of the wadding.

JP2009056385 - BAG FILTER

TORAY INDUSTRIES

Published 2009-03-19

Priority date 2007-08-31 (JP)

PROBLEM TO BE SOLVED: To provide a bag filter which has excellent durability against local load due to dust concentration and appropriate flexibility against impact and when vertically mounted to the top plate part of a dust collector, keeps sealability between the top plate and the bag filter.

SOLUTION: The bag filter has a cylindrical body formed of nonwoven fabric having polyphenylene sulfide fiber as a main component and a piece of patch sawed to both ends of the cylindrical body, wherein the cylindrical body is formed by superposing the ends of the nonwoven fabric by 13-20 mm and fusing. The patch sawed to one end of the cylindrical body contains a snap ring and felt packing.

Nonwovens for industrial applications

JP2009028617 - FILTER NONWOVEN FABRIC

KUREHA SENI KK

Published 2009-02-12

Priority date 2007-07-26 (JP)

PROBLEM TO BE SOLVED: To provide a filter nonwoven fabric which contains nano-fiber, has excellent filtering performance and good durability and is suitable for fuel-type filters.

SOLUTION: The filter nonwoven fabric is formed by forming a nano-fiber 2 of a fiber diameter of 50-900 nm \varnothing ; and a basis mass weight of 0.01-1.0 g/m², by the electro-spinning method, on a substrate 1 selected from meshes, long-fiber nonwoven fabrics and short-fiber nonwoven fabrics having a binder-adhered short-fiber layer of a basis mass weight of 20-100 g/m², laminating a nonwoven fabric 3 selected from melt-blown nonwoven fabrics or short-fiber nonwoven fabrics formed by the needle punch method on the nano-fiber-formed surface of the resultant nano-fiber-formed substrate, and integrating the substrate with the laminated nonwoven fabric by partial thermal adhesion and setting a permeability of the laminated nonwoven fabric to be 1.0-50 cm³·m/cm²/sec.

EP2025788 - DEVICE AND METHOD FOR LAYING NON-WOVEN LENGTHS AS INSULATING MATERIAL

HUBER GERHARD (DE) (Inventor)

Published 2009-02-18

Priority date 2007-07-03 (EP)

Machine for laying fibers to produce insulating panels has a chamber, into which the fibers are blown. The base of this is formed by a conveyor belt, across which adjustable partitions are fitted at either end. The sides of the chamber are formed by two more adjustable walls. An independent claim is included for a method for laying fibers to produce insulating panels using the machine.

JP2009018306 - FILTER DEVICE FOR FUEL

NIFCO INC

Published 2009-01-29

Priority date 2008-08-22 (JP)

PROBLEM TO BE SOLVED: To normally easily keep a size of the mesh of a filter body constituting a filter device at a planned size.

SOLUTION: The filter device has the bag-like filter body, and a space forming member contained in the filter body and normally keeping the filter body in an inflated bag state, mountable to a fuel sucking port set in a fuel tank with an inner space of the filter body communicating therewith. The filter body is provided with an upper face and a lower face. At least the lower face of the filter body is provided with an inner layer part consisting of nonwoven fabric constituted of olefinic resin fiber like polypropylene and an outer layer part consisting of textile mesh.

JP2008296222 - AIR FILTER FILTERING MEDIUM AND AIR FILTER UNIT USING THE SAME

NITTO DENKO CORP

Published 2008-12-11

Priority date 2008-07-23 (JP)

PROBLEM TO BE SOLVED: To provide an air filter filtering medium capable of preventing clogging caused by collected dust and suppressing an increase in pressure loss.

SOLUTION: The air filter filtering medium comprises a polytetrafluoroethylene porous film 1 and a fibrous perforated material 2, wherein the material 2 with a range of a fiber diameter of 1 to 15 μ m, a porosity of 70% or more, and a basis amount of 60 g/m² is disposed upstream the film 1. A nonwoven fabric is preferable as the material 2, and polyethylene, polypropylene, polyethylene terephthalate, and the like can be used as the material.

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JP2008063719 - WATER-SOLUBLE PAPER OR WATER-SOLUBLE NONWOVEN FABRIC HAVING WATER RESISTANCE BUT EASILY RESTORE ITS WATER-SOLUBLE PROPERTY TO BE DISPOSABLE IN SEWAGE, AND METHOD FOR PRODUCING THE SAME

HAYASHIDA TAKAMITSU (Inventor)

Published 2008-03-21

Priority date 2007-12-17 (JP)

PROBLEM TO BE SOLVED: To provide water-soluble paper or water-soluble nonwoven fabric that has water resistance when they are used, but they can easily lose the water resistance when they are disposed of in sewerage by restoring its water-soluble properties, and further to provide a method for producing the same. **SOLUTION:** The fibers of the water-soluble paper or the water-soluble nonwoven fabric are coated with a wax that can be readily peeled off from the fiber surface, when they are treated with a surfactant. In the method, the characteristic that the water-soluble paper and the water-soluble nonwoven fabric are soluble in water but insoluble in alcohol or the like is utilized.

CN101187110 - ACOUSTIC INSULATION INTERLACED FABRIC

SHENGHONG GROUP CO LTD

Published 2008-05-28

Priority date 2007-12-10 (CN)

The invention provides a brand new weaving concept and method of sound insulation non-woven cloth, which adopts non-woven production technique and outputs fiber glass net after mechanic carding on the short fiber with length between 35mm and 68mm of the fiber glass. The invention has simple process and high weaving efficiency, improves the production value of the product, and uses the fiber glass, the hollow ceiba fiber and bamboo fiber as materials, and has light ration, excellent property and good economy and social benefit.

KR100839215 - NON-WOVEN TYPE LAMINATED PAPER MANUFACTURED BY WET-LAID TYPE AND METHOD FOR MANUFACTURING THE SAME

WOORIM CO LTD

Published 2008-07-02

Priority date 2007-12-03 (KR)

JP4156014 - PACKAGE FILLED WITH HEAT-INSULATING MATERIAL AND PACKAGE OF PACKAGE

YAMATO INDUSTRY CO LTD OFFICE; SENI ASAHI KASEI CORPORATION

Published 2008-09-24

Priority date 2007-11-09 (JP)

PROBLEM TO BE SOLVED: To provide a package filled with heat-insulating material and a heat-insulated package excellent in fire retardancy, scatter preventing performance, and metal corrosiveness.

SOLUTION: The package is made of synthetic fiber non-woven cloth of fire retardant kneaded-in type and filled with the heat-insulating material containing inorganic fibers, wherein the non-woven cloth has a partial thermal pressure attachment rate of 5-35% and a basis weight of 20-100 g/m², and the heat-insulating material is accommodated in the package, and the peripheral end part of the package is joined tightly in such an arrangement that the joining strength is 1 N/25 mm or more.

CN101219307 - METHOD FOR MANUFACTURING NON-WOVEN FILTER MATERIAL COMBINED OF FILATURE FLEECE FORMATION AND WATER FLUID JET REINFORCE

SHANGHAI BG IND FABRIC CO LTD

Published 2008-07-16

Priority date 2007-09-27 (CN)

The invention provides a preparation method of non-woven fabric filter material by combining spunlaid with water jet flow consolidation. The steps of the method include drying polyester chip crystal, spinning by screw extruding, cooling by later blow, air current drawing, separation cross laying, winding solidifying by high-pressure cut squirt jetting, drying, rolling and unrolling, traditional or functionalization post-processing, edge cutting, winding and finishing. The invention has the advantages of stable structure, high intensity, even surface, soft hand-feeling, uniform pore diameter distribution and good filtering performance.

Nonwovens for industrial applications

CN101219306 - NON-WOVEN FILTER MATERIAL COMBINED OF MECHANICAL CONSOLIDATION AND WATER FLUID JET REINFORCE, AND PRODUCTION METHOD

SHANGHAI BG IND FABRIC CO LTD

Published 2008-07-16

Priority date 2007-09-27 (CN)

The invention relates to a preparation method of non-woven fabric filter material by combining mechanical consolidation with water jet flow consolidation. The steps of the method include fiber package opening, fabric loosing; feeding cotton, trimming, mesh-laying, pre needling, needling, winding solidifying by high-pressure cut squirt jetting, drying, rolling and unrolling, hot forming, genapping, glazing or functionalization post-processing, edge cutting, winding and finishing. Compared with any single needling technology or spunlace technology, the invention has remarkable advantages in appearance, hand feeling, and mechanical performance. The surface of the invention is smoother and neater with closer and more concentrate pore diameter distribution and the filtering performance of the invention has been distinctively improved. Compared with the filtering material adopting single needling technology, 10-15 percent of the fiber consumption can be saved in order to realize the same filtering effect by adopting the preparation method of the invention.

JP2008018430 - CYLINDRICAL FILTER

JAPAN VILENE CO LTD

Published 2008-01-31

Priority date 2007-08-31 (JP)

PROBLEM TO BE SOLVED: To provide a cylindrical filter having a long filtration life.

SOLUTION: The cylindrical filter of the present invention is manufactured from main filtration nonwoven fabric comprising two or more kinds of resin components, containing two or more kinds of ultrafine fibers derived from splittable fibers splittable by an external force, and substantially not fibrillated fibers with a fiber diameter of less than 20 μm . The fiber includes ultrafine fibers of a fiber diameter of 4 μm or less and bonded adhesive fiber of a fiber diameter of 8-20 μm . The cylindrical filter includes auxiliary filtration nonwoven fabric consisting of wet nonwoven fabric with a maximum hole diameter twice or less of the average flow rate hole diameter, and with an average flow pore diameter larger than the main filtration nonwoven fabric. The main filtration nonwoven fabric and auxiliary filtration nonwoven fabric are disposed around the porous cylinder in an adjacently layered state.

JP2008018429 - CYLINDRICAL FILTER

JAPAN VILENE CO LTD

Published 2008-01-31

Priority date 2007-08-31 (JP)

PROBLEM TO BE SOLVED: To provide a cylindrical filter having a long filtration life and manufacturable with preferable workability.

SOLUTION: This cylindrical filter of the present invention comprises main filtration nonwoven fabric consisting of meltblown nonwoven fabric, and wet nonwoven fabric having an average flow pore diameter larger than the main filtration nonwoven fabric, substantially not fibrillated, manufactured of fibers of a fiber diameter of less than 20 μm . The fiber includes ultrafine fibers of a fiber diameter of less than 4 μm and bonded adhesive fibers of a fiber diameter of 8-20 μm . The cylindrical filter includes auxiliary filtration nonwoven fabric consisting of wet nonwoven fabric with a maximum hole diameter less than twice of the average flow rate hole diameter. The main filtration nonwoven fabric and auxiliary filtration nonwoven fabric are disposed around the porous cylinder in an adjacently layered state.

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KR20080112797 - POLYPROPYLENE NONWOVEN FABRIC HAVING AN EXCELLENT FLAME RESISTANCE

TORAY SAEHAN INC

Published 2008-12-26

Priority date 2007-06-22 (KR)

PURPOSE: A polypropylene long fiber multilayer complex non-woven fabric having a superior weatherproof property and a superior fire retardant property is provided to generate poisonous gas and to have an eco-friendly property and a human harmless property by using an environment-friendly non-halogen flame retardant.

CONSTITUTION: A polypropylene long fiber multilayer complex non-woven fabric having a superior weatherproof property and a superior fire retardant property contains a flame retardant and a UV stabilizer based on whole poly propylene resin. A reactant of 0.1 - 2.0 weight% of N,N-1,2-ethanediybis-1,3-propane diamine and a cyclohexane and a peroxide N-butyl-2,2,6,6-tetramethyl-4-pyridineamine-2,4,6-trichloro-1,3,5-triazine is used as the flame retardant. An HALS typed UV stabilizer of 0.1 - 2.0 weight% is used as a UV stabilizer. (C) KIPO 2009

JP2008303512 - FILTER FOR FOOD PRODUCT, AND FOOD PRODUCT-ENCLOSING BAG BODY USING THE SAME

ASAHI KASEI FIBERS CORP

Published 2008-12-18

Priority date 2007-06-11 (JP)

PROBLEM TO BE SOLVED: To provide a filter material for food product, which has reduced powder leakage, and has excellent heat-sealing workability, sealing strength, stiffness, etc.

SOLUTION: The filter material for the food product consists of a laminated non-woven fabric obtained by laminating and integrally thermally compressing a polyester-based fiber layer A having a high melting component and a layer B containing a polyester-based fiber having a melting point lower than the melting point of the constituting fiber of the layer A by $\geq 30^{\circ}\text{C}$, and the laminated non-woven fabric has a unit weight of 10-50 g/m², a powder leakage rate of $< +10\%$, and a hot tack strength at a heat-sealing temperature of ≥ 1 N/25 mm.

EP2006008 - FILTER MEDIUM FOR AIR AND LIQUID FILTRATION

SANDLER AG

Published 2008-12-24

Priority date 2007-06-11 (DE)

The medium has a melt blown layer made of thermoplastic polymer that is selected from a group of thermoplastic elastomers, polybutylene terephthalate, PET, polypropylene or polyamide. A filter layer is made of a thermoplastic staple fiber non-woven fabric, where the melt blown layer is interconnected with the filter layer at defined punching areas by pressure and heat. The defined punching areas form a portion of minimum 4 percent and maximally 30 percent of the total area of the medium.