

**WO2008007803A1 - ANTISTATIC POLYESTER FALSE TWIST YARN,
PROCESS FOR PRODUCING THE SAME, AND ANTISTATIC SPECIAL COMPOSITE
FALSE TWIST YARN INCLUDING THE ANTISTATIC POLYESTER FALSE TWIST
YARN**

*TEIJIN FIBERS LIMITED | YANAGIHARA, MASAOKI | NAKAJIMA,
SUGURU*

Published 2008-01-17

An unstretched multifilament yarn made of a PET type aromatic polyester containing a polyoxyalkylene polyether and an organic ionic compound is stretched and simultaneously false-twisted under specific conditions. The false twisting is stably conducted at a high speed without causing section deformation or fluffing to thereby give a yarn of a fibrous structure having an excellent texture and unsusceptibility to fibrillation. Thus, a polyester false twist yarn having excellent long-term antistatic properties is produced. The unstretched yarn in combination with an unstretched polyester yarn comprising a poly(methyl methacrylate) polymer and/or polystyrene polymer is stretched and simultaneously false-twisted under specific conditions to thereby stably produce at a high speed a composite false twist yarn which is free from fluffing, has excellent bulkiness, gives a spun-yarn feeling, and has excellent long-term antistatic properties. This composite false-twisted yarn is useful especially in applications where static electricity is desired to be diminished, such as school uniforms, uniforms, and dust-proof clothing.

EP1468130B1 - MODIFIED POLYOLEFIN FIBRES

TOTAL PETROCHEMICALS RESEARCH FELUY

Published 2008-01-09

Polyolefin material comprising a core portion composed of at least one of polypropylene produced using a Ziegler-Natta catalyst, isotactic homopolymer or random copolymer of propylene produced using a metallocene catalyst or polyethylene, preferably linear low density polyethylene, and an external layer composed of the core portion material additionally blended with a syndiotactic polypropylene, the syndiotactic polypropylene including at least one particulate material or chemical additive.

WO2007130979A2 - MODIFICATION OF REINFORCING FIBER TOWS USED IN COMPOSITE MATERIALS BY USING NANOREINFORCEMENTS

ROHR, INC. | GOODRICH CORPORATION | KRUCKENBERG, TERESA M. | HILL, VALERIE A.

Published 2007-11-15

Methods for enhancing the strength and stiffness of fibers, including nanoreinforced fibers and fiber tows, composite materials including the nanoreinforced fibers and tows, and articles of manufacture including the composite materials, are disclosed. The methods involve adhering random or aligned nanoreinforcement materials, such as carbon nanotubes, nanofibers, graphene plates, nanowires, nanoparticles, into or onto a spread carbon tow or yarn to form modified fibers wherein nanoreinforcement is adhered or trapped within the carbon tow. The carbon nanotubes or nanofibers can be aligned. Carbon fiber tows including the modified carbon fibers can be processed or woven for impregnation with a thermoset resin or thermoplastic to form a composite structure. The performance increase of the modified fibers relative to the unmodified fibers can be greater than the weight increase caused by the modification. Increased fiber stiffness and strength can result in a significant weight saving.

JP2007297721A - CONJUGATE YARN, SOUNDPROOF CARPET AND FIBER PRODUCT

DAIWA, KK | YACHIYO, KK | SHOEI, KK

Published 2007-11-15

PROBLEM TO BE SOLVED: To provide a conjugate yarn, a soundproof carpet and fiber product each having sound absorbency, deodorizing property, anti-allergen property, antimicrobial property and antistatic property at the same time. SOLUTION: In the conjugate yarn, a core part is constituted of a yarn containing a phthalocyanine fiber 12 and a yarn 13 containing a conductive fiber, and a sheath part is constituted of a yarn 14 composed of a natural fiber, a synthetic fiber, a semisynthetic fiber or a regenerated fiber around the core part.

JP2007291562A - FIBER HAVING DURABLE ANTISTATIC FUNCTION AND METHOD FOR PRODUCING THE SAME

NICCA CHEMICAL CO LTD

Published 2007-11-08

PROBLEM TO BE SOLVED: To provide a fiber having durable antistatic function exhibiting antistaticity and functionality highly durable to washing and a method for producing the fiber. SOLUTION: The fiber having durable antistatic function comprises a synthetic fiber substrate coated with an electrically conductive polymer and having a surface resistivity of $\leq 1 \times 10^{10} \Omega$ wherein at least a part of the conductive polymer coating surface is coated with a functional material. The fiber having durable antistatic function is produced by applying a monomer for forming a conductive polymer to a synthetic fiber substrate in an amount of 0.2-5.0% o. w. f., polymerizing the monomer with an oxidizing agent to coat the synthetic fiber substrate with the conductive polymer and applying a functional material to at least a part of the surface.

JP2007291558A - ANTISTATIC FIBER STRUCTURE

GUNZE LTD

Published 2007-11-08

PROBLEM TO BE SOLVED: To provide an antistatic fiber structure capable of imparting excellent antistatic effect without imparting physical properties and touch feeling of fiber. SOLUTION: The antistatic fiber structure has a fiber composed of a thermoplastic elastomer. The antistatic fiber structure has, further, a fiber composed of a fiber other than the thermoplastic elastomer. In the fiber structure, the thermoplastic elastomer is preferably a polyamide-based elastomer.

JP2007284847A - ELECTROCONDUCTIVE POLYESTER FIBER

NIPPON ESTER CO LTD

Published 2007-11-01

PROBLEM TO BE SOLVED: To provide an electroconductive polyester fiber that has an electric resistance within a certain range, which has reduced unevenness in the longitudinal direction, can be produced with high operability and can widely be used for not only clothing use, such as anti-static working garment or uniform, interior use such as for curtain, and industrial use, but also charged brush for dry type copying machine, telefax or printer and cleaner brush. SOLUTION: This fiber is a multifilament composed of a plurality of single filaments wherein at least a part of the component of the single filaments has a main repeating unit of ethylene terephthalate and includes 10 to 30 mass% of polyalkylene glycol.

US7288209B2 - TREATING AGENT FOR ELASTIC FIBERS AND ELASTIC FIBERS OBTAINED BY USING THE SAME

MATSUMOTO YUSHI SEIYAKU CO., LTD.

Published 2007-10-30

The present invention provides finishes for elastic fiber, which produce elastic fiber yarn having superior antistatic, unwinding, package buildup performance and lubricity properties. The present finishes further minimize fly sticking on the elastic fiber during the knitting operation of elastic fiber yarn and cotton spun yarn. The finishes of the present invention contain 80 to 99.99 parts by weight of at least one base component selected from the group consisting of silicone oils, mineral oils and ester oils, 0.01 to 10 parts by weight of amino-modified silicones and 0.0001 to 10 parts by weight of phosphate esters containing an acidic hydroxyl group and at least one hydrocarbon or oxyalkylene group per molecule. The elastic fiber of the present invention is characterized with the application of the finish in an amount of 0.1 to 15 weight percent of the fiber.

Centexbel PatentAlert 3-2008

JP2007270414A - OIL FOR ELASTIC FIBER, AND ELASTIC FIBER ATTACHED THERETO

MATSUMOTO YUSHI SEIYAKU CO LTD

Published 2007-10-18

PROBLEM TO BE SOLVED: To provide an oil for an elastic fiber, which is capable of not only imparting stable antistatic properties and good unwindability to the obtained elastic fiber but also reducing the friction of the elastic fiber to a metal. SOLUTION: The oil for elastic fiber including a silicone oil as a base component contains the silicone oil so as to be ≤ 40 wt.% of the total amount of oil for the elastic fiber, and the friction to a metal measured by running the elastic fiber attached with the oil for the elastic fiber at a running speed of 100 m/min is ≤ 18 g.

WO2007111809A1 - COLORFAST DYED POLYETHERIMIDE ARTICLES INCLUDING FIBER

GENERAL ELECTRIC COMPANY | FAKHREDDINE, YOUSSEF | VAN DER HOOFT, RUDI

Published 2007-10-04

A composition comprising a dyed polymer fiber capable of holding the color of the dye wherein the fiber comprises a polyetherimide and the dyed fiber has a colorfast score of 1/5 or higher according to ISO 105-302.

JP2007247089A - FIBER STRUCTURE

TORAY IND INC

Published 2007-09-27

PROBLEM TO BE SOLVED: To provide a fiber structure having antistatic properties and water repellency with excellent durability in combination and multiple functions by using a fluorine-based water and oil repellent considering environmental problems. SOLUTION: The fiber structure is characterized as follows. The fluorine-based water and oil repellent is fixed in a layer form through a film composed of an antistatic polymer or through a film composed of the antistatic polymer and the fluorine-based water and oil repellent and the fluorine-based water and oil repellent is PFOA (perfluorooctanoic acid) and/or PFOS (perfluorooctane sulfonic acid) at < 5 ng/g concentration thereof when measured by an LC-MS (high-performance liquid chromatograph-mass spectrometer).

JP2007247094A - CONDUCTIVE POLYESTER FIBER

NIPPON ESTER CO LTD

Published 2007-09-27

PROBLEM TO BE SOLVED: To provide conductive polyester fibers which have an electric resistance value in a specific range, little have the irregularity of the electric resistance value in the longitudinal direction of the fibers, can be obtained in good operability, and are used not only for clothing uses such as antistatic working clothes and uniforms, interior uses such as curtains, and industrial material uses, but also for charged brushes and cleaner brushes used in electrophotographic recording type dry copying machines, facsimiles, printers and the like. SOLUTION: The conductive polyester fibers including a multifilament yarn comprising a plurality of single filaments in which at least one part of components for the single filaments is a polyester that has repeating units consisting mainly of ethylene terephthalate units, contains a polyalkylene glycol in an amount of 3 to 15 mass%, and contains carbon black in an amount of 8 to 15 mass%.

JP2007224427A - FIBER STRUCTURE

TORAY IND INC

Published 2007-09-06

PROBLEM TO BE SOLVED: To provide a fiber structure having excellent pollen adhesion-preventing performances such as difficult adhesion and easy fall of pollens, durable antistatic properties and a soft touch feeling in consideration of the background of the conventional techniques. SOLUTION: The fiber structure is a fiber structure for preventing pollen adhesion characterized as follows. A resin composition formed on the fiber surface contains organic micro-particles having 5-400 nm primary particle diameter.

WO2007083672A1 - FIBER-TREATING AGENT, FIBER-TREATING METHOD, FIBER AND CLOTH TREATED WITH THE FIBER-TREATING AGENT

IDEMITSU TECHNOFINE CO., LTD. | NISSEI BIO COMPANY, LIMITED | KUSAMOTO, NOBUO | SAKAMOTO, MASASHI | OYAMA, SHIGERU | ITO, HAJIME | AMANO, KAZUTOSHI | MATSUNAGA, MASAJI | YOSHIDA, FUMIHITO

Published 2007-07-26

A fiber-treating agent according to the invention is a fiber-treating agent to be used upon fiber surface treatment and contains at least one member of DNA, a metal salt of DNA or RNA being a high molecular component and a deoxyoligonucleotide, a deoxymononucleotide, an oligonucleotide or a mononucleotide being a low molecular component (referred to as DNA and/or RNA or the like), and a reactive organic compound having a reactive group or an organic compound having an adhesive property. When a treatment is carried out with the fiber-treating agent having this composition, DNA or the like is not removed even if the fiber subjected to the fiber treatment is used for a long period of time and the characteristic of the DNA or the like can be maintained, therefore, the durability is good, and moisture retention, water absorption, hygroscopicity, an antistatic property, a UV-shielding property, a wound-healing property, prevention of and recovery from decubitus ulcer, prevention of skin roughness or the like can be expressed continuously.

EP1808526A1 - SHORT FIBER OF PARA-AROMATIC POLYAMIDE

TEIJIN TECHNO PRODUCTS LIMITED

Published 2007-07-18

Para-type aromatic polyamide short fibers are attached with a phosphate ester alkali metal salt of an alcohol having a carbon number of 12 having a molar fraction of a monoester salt of from 45 to 70% by mol and a molar fraction of a diester salt of from 10 to 40% by mol in an amount of from 0.05 to 1.0% by weight based on the weight of the fibers, whereby such para-type aromatic polyamide short fibers excellent in spinning property are obtained that are excellent in bundling property and antistatic property, and are low in adhesion property causing less twining on rollers and less formation of scums.

**JP2007177383A - ACRYLIC ELECTROCONDUCTIVE SYNTHETIC FIBER
MULTIFILAMENT AND METHOD FOR PRODUCING THE SAME**

TORAY IND INC

Published 2007-07-12

PROBLEM TO BE SOLVED: To provide a electroconductive acrylic synthetic fiber multifilament thread having small monofilament fineness and integrally having excellent electroconductivity, fibrillation properties, durability and the like. SOLUTION: The electroconductive acrylic synthetic fiber multifilament has 10-800 dtex fineness, 0.1-2.0 dtex monofilament fineness and characteristics described by following items (1) and (2): (1) the fiber forming polymer comprises an acrylonitrile-based polymer and the antistatic polymer comprises a copolymer of a polyalkylene glycol with acrylonitrile and (2) the antistatic polymer contains carbon black. In the multifilament, an antistatic polymer constituting the electroconductive part in each of the filaments is distributed in a fibril form and a network structural form in a fiber forming polymer constituting a nonelectroconductive part.

**US7241497B2 - MULTI-COMPONENT FIBERS HAVING ENHANCED
REVERSIBLE THERMAL PROPERTIES AND METHODS OF MANUFACTURING
THEREOF**

OUTLAST TECHNOLOGIES, INC.

Published 2007-07-10

The invention relates to a multi-component fiber having enhanced reversible thermal properties and methods of manufacturing thereof. The multi-component fiber comprises a fiber body formed from a plurality of elongated members, at least one of the elongated members comprising a temperature regulating material dispersed therein. The temperature regulating material comprises a phase change material. The multi-component fiber may be formed via a melt spinning process or a solution spinning process and may be used or incorporated in various products where a thermal regulating property is desired. For example, the multi-component fiber may be used in textiles, apparel, footwear, medical products, containers and packagings, buildings, appliances, and other products.

JP2007169865A - FIBER STRUCTURE

TORAY IND INC

Published 2007-07-05

PROBLEM TO BE SOLVED: To provide an excellent multifunctional type fiber structure having antistatic property, water repellency and also having a function of pollen attachment-preventing property. SOLUTION: In the fiber structure, a resin coat having antistatic property and containing a water repellent is formed on the surface of fiber and further, at least part of the coat is coated with the water repellent and the coat is fixed in a layered state.

EP1803847A1 - METHOD OF IMPARTING ANTISTATIC PROPERTY TO FIBER STRUCTURE, WASHING MACHINE THEREFORE AND FIBER STRUCTURE HAVING ANTISTATIC PROPERTY IMPARTED THERETO

SHARP KABUSHIKI KAISHA

Published 2007-07-04

Provided are a method capable of imparting antistaticity to a fabric structure in a simple manner without causing any color change in the fabric structure, a fabric structure imparted with antistaticity by the method, and a washing machine that imparts antistaticity to a fabric structure according to the method. The method for imparting antistaticity to a fabric structure allows metal or metal compound to adhere on a surface of the fabric structure by drying the fabric structure in a state where a liquid containing the metal or the metal compound exists on the surface of the fabric structure.

US2007014849A1 - MULTI-FUNCTIONAL YARNS AND FABRICS HAVING ANTI-MICROBIAL, ANTI-STATIC AND ANTI-ODOR CHARACTERISTICS

Winterhalter, Carole, A. (Inventor)

Published 2007-06-28

The present invention is directed to yarns and fabrics that exhibit anti-static, anti-odor, and anti-microbial properties. The yarn is comprised of several groups of predetermined fibers. One of these groups of predetermined fibers comprises fibers that exhibit anti-microbial, anti-odor and anti-static characteristics. In one embodiment, the yarn comprises a first plurality of fibers, a second plurality of fibers that are different from the fibers of the first plurality, and a third plurality of fibers that are different from the fibers of the first and second pluralities. In one embodiment, the fibers which exhibit anti-microbial, anti-odor and anti-static properties are metallic coated fibers. Other fibers used to form different embodiments of the yarns include cotton, nylon, polyester, wool, Nomex, Kevlar, and stretch fibers.

JP2007146322A - FIBER STRUCTURE

TORAY IND INC

Published 2007-06-14

PROBLEM TO BE SOLVED: To obtain a fiber structure containing a polyamide-based fiber, having excellent durable antistatic properties and stain resistance. SOLUTION: In the fiber structure containing a polyamide-based fiber at least at a part, a sulfone group-containing compound and/or a polyhydric phenol-based compound is stuck to the surface of the polyamide-based fiber and further an antistatic polymer is stuck to the surface of the polyamide-based fiber.

JP2007146329A - FIBER STRUCTURE

TORAY IND INC

Published 2007-06-14

PROBLEM TO BE SOLVED: To provide a fiber structure which has a skin roughness-preventing effect, has a water-absorbing function and an antistatic function, and is excellent in washing durability. SOLUTION: This fiber structure is characterized by forming a coating film which is obtained by polymerizing monomers having two or more acryl groups and/or methacryl groups at both the terminals or one terminal of a main chain consisting mainly of a polyalkylene segment or at the side chains of the main chain and contains a moisturizing agent, on the surfaces of the fibers.

JP2007146313A - FIBER STRUCTURE

TORAY IND INC

Published 2007-06-14

PROBLEM TO BE SOLVED: To provide a fiber structure having the composite performance of functions such as water absorptivity, antistatic property, stain resistance and melting resistance which are excellent in durability. SOLUTION: This fiber structure comprising single fibers to which a resin coating film containing, as a polymerization component, a compound having two or more acryl groups or methacryl groups at both the terminals or one terminal of a main chain consisting mainly of a polyalkylene oxide segment or at the side chains of the main chain, and a resin coating film containing, as a polymerization component, a trimethylol melamine represented by the general formula (1) are laminated.

US20070125059A1 - LOW WICK CONTINUOUS FILAMENT POLYESTER YARN

INVISTA TECHNOLOGIES S.A.R.L

Published 2007-06-07

The present invention teaches a filament yarn that has low wicking, i. e., less than or equal to about 6 mm; has a contact angle of greater than or equal to about 65° but less than about 90° according to the straw method; and a static voltage of +/-400 volts (between -400 to +400 volts). Such yarns are traditionally employed in weaving signs, banners, awning, tents and other products where moisture resistant yarn is important. The yarns can be made into fabrics that possess the same features as the yarn, namely low wicking, and water and oil repellency.

EP1664407B1 - COMPOSITE TWIST CORE-SPUN YARN AND METHOD AND DEVICE FOR ITS PRODUCTION

E.I. DUPONT DE NEMOURS AND COMPANY

Published 2007-05-23

A substantially torqueless composite dual core-spun yarn (10) has a substantially inelastic central hard core (20) covered with a dual-spun fiber covering (30). The central hard core (20) has an elongation at break less than 50% and a Z or S twist, and the fiber covering (30) comprises fibers twisted on the core (20) with an S or Z twist opposite to that of the core. The opposite twists of the core (20) and of the covering (30) exert opposite and substantially equal torques. This yarn is produced by introducing two slivers (30A,30B) forming the covering (30) and a central (30) core in a spinning triangle (40). The core (20) is fed overtwisted S or Z and the slivers (30A,30B) have an opposite Z or S twist corresponding to about 30% to 70% of the twist of the fed overtwisted core (20) that detwists during spinning. The inelastic core (20) is fed at controlled speed to compensate for the angle of feed and to compensate for detwisting, and is guided into the spinning triangle (40) by a guide groove (52) in a feed roller (50).

JP2007100291A - TREATING AGENT FOR ELASTIC FIBER AND ELASTIC FIBER

MATSUMOTO YUSHI SEIYAKU CO LTD

Published 2007-04-19

PROBLEM TO BE SOLVED: To provide a treating agent for elastic fibers imparting stable unwinding or antistatic properties to the elastic fibers and having degree of foaming controlled to a low level and to provide the elastic fiber to which the treating agent is applied. SOLUTION: The treating agent for the elastic fibers is obtained by using at least one or more kinds selected from a silicone oil, a mineral oil and an ester oil as a base component. The treating agent contains 0.01-30 wt.% of a nonionic surfactant having 3-15 HLB and the degree of foaming is within the range of 0.1-3 cm. The treating agent is applied in an amount of 0.1-15 wt.% to the elastic fibers.

JP2007056420A - CATIONIC DYEABILITY ANTISTATIC POLYESTER FIBER

TORAY IND INC

Published 2007-03-08

PROBLEM TO BE SOLVED: To provide a mild cationic dyeability antistatic polyester fiber having excellent stability in spinning process, mild and high color development providing nonconventional pearl-like milky feeling, excellent seethrough-preventing properties, UV-shielding properties and excellent antistatic properties. SOLUTION: The cationic dyeability antistatic polyester fiber comprises a polyester A obtained by copolymerizing 0.1-6 mol% metal salt of 5-sulfoisophthalic acid and 0.1-5 wt.% polyethylene glycol having 200-6,000 weight average molecular weight, free from antimony or having ≤ 30 ppm content of the antimony expressed in terms of atom, containing 1-2 wt.% titanium oxide particles and further containing a titanium compound except the titanium oxide and a phosphorus compound, and a polyether-ester-amide-based antistatic component B, wherein the component B is homogeneously dispersed in the resin A and forms continuous independent stripe-shaped dispersion phases in the fiber length direction.

JP2007056405A - FIBER-TREATING AGENT AND FIBER-TREATING METHOD

MIYOSHI OIL & FAT CO LTD

Published 2007-03-08

PROBLEM TO BE SOLVED: To provide a fiber-treating agent capable of imparting water repellency to fibers without deteriorating adhesiveness, in order to solve such a problem that the original water repellency of synthetic fibers is deteriorated, when an antistatic agent treatment is applied to prevent the generation of static electricity on the production of a nonwoven fabric from the synthetic fibers, and also in order to solve a problem such that the adhesiveness of hot melt adhesives and adhesive tapes for fixing sanitary products is deteriorated, when a nonwoven fabric comprising water repellency-deteriorated synthetic fibers treated with a water-repelling agent and used for sanitary products or the like is assembled into or mounted on the sanitary product. **SOLUTION:** This fiber-treating agent is characterized by using a water-repelling agent and a water-soluble natural rubbery substance. The form of the fiber-treating agent is a one pack type fiber-treating agent wherein the water-soluble natural rubbery substance is contained in an aqueous emulsion of the water-repelling agent, or a two pack type fiber-treating agent which comprises the first liquid comprising an aqueous emulsion of the water-repelling agent and the second liquid containing a water-soluble natural rubbery substance.

JP2007039852A - ANTISTATIC FIBER FABRIC AND METHOD FOR PRODUCTION THEREOF

KOMATSU SEIREN CO LTD

Published 2007-02-15

PROBLEM TO BE SOLVED: To provide an antistatic fiber fabric that solves the above-stated problems, inhibits the fabric hand from becoming hard and can have excellent washing durability in no need of a special device. **SOLUTION:** The antistatic composition including (a) a quaternary ammonium salt type polymer and/or a polyamine resin, (b) a thermally reactive type blocked urethane bearing two or more blocked isocyanate in one molecule and (c) a surfactant having two or more oleyl groups and hydroxy groups is applied to the fiber fabric thereby produce an antistatic fiber fabric.

WO2007014291A2 - MODACRYLIC/ARAMID FIBER BLENDS FOR ARC AND FLAME PROTECTION AND REDUCED SHRINKAGE

E. I. DU PONT DE NEMOURS AND COMPANY

Published 2007-02-01

A yarn, fabric and garment suitable for use in arc and flame protection contains modacrylic, p-aramid and m-aramid fibers wherein the m-aramid fibers have a degree of crystallinity of at least 20%.

JP2007023462A - POLYESTER FIBER STRUCTURE

KANEHISA, KK

Published 2007-02-01

PROBLEM TO BE SOLVED: To provide a fiber structure composed of a polyester fiber with antistatic functions and to improve antistatic functions thereof. SOLUTION: In modifying and processing a fiber structure composed of a polyester fiber to be dyed with a hydrophilic substituent group-containing dihalogeno-S-triazine based compound and a disperse dye by reaction in the presence of a water-soluble hydrolyzed silk by an exhaustion method, a simple substance or a mixture of a 2,6-dihalogeno-4-Y-1,3,5-triazine derivative represented by general formula (1) is used and the fiber structure is processed.

JP2007016322A - METHOD FOR MODIFYING FIBERS

*AICHI PREFECTURE | ICHINOMIYA FASHION DESIGN CENTER | SHIN
ETSU CHEM CO LTD*

Published 2007-01-25

PROBLEM TO BE SOLVED: To provide a method for modifying fibers, by which modified fibers have high safety since fibers are modified without using a poisonous solvent such as carbon disulfide and which has a simple production process, prevents fuzzing, obtains modified fibers having improved tensile strength, excellent abrasion resistance, antistatic properties, water absorption properties and washing resistance and modifies fibers having low alkali resistance by a simple method in comparison with a conventional imitation linen finishing. SOLUTION: The method for modifying fibers comprises suspending or dispersing a cellulose ether having such a low degree of substitution that a molar degree of substitution with an alkyl group and/or a hydroxyalkyl group ranges from 0.05 to 1.3 in water or a dilute alkali aqueous solution having a concentration of an alkali of 1 mass% or less under shear force, applying the dispersion and a crosslinking agent or an aqueous resin emulsion to the fibers and thermally treating the applied fibers.

**JP2007009390A - SYNTHETIC ACRYLIC FIBER HAVING CONDUCTIVITY,
ANTIPELLING PROPERTIES AND HEAT STORAGE PROPERTIES, METHOD FOR
PRODUCING THE SAME AND SPUN YARN USING THE SAME**

mitsubishi rayon co ltd

Published 2007-01-18

PROBLEM TO BE SOLVED: To provide a conductive acrylic fiber able to impart excellent antistatic properties, heat storage properties and antipilling properties to fiber products. SOLUTION: The conductive acrylic fiber comprises a core section comprising an acrylonitrile-based polymer containing 50-80 volume% conductive particles having $\geq 10^{-3}$ S/cm conductivity and a sheath section comprising the acrylonitrile-based polymer and has $\leq 1.3 \times 10^5$ m $\times\Omega$ average electric resistance of single fiber under 1,000 V applied voltage and 10-35 value of product of knot strength [DKS(cN/dtex)] and knot elongation [DKE(%)] of the fiber.

**JP2006348450A - ANTISTATIC METHOD FOR PRODUCING FIBER
STRUCTURE COMPOSED OF POLYESTER FIBER DYED WITH DISPERSE DYE**

KANEHISA, KK

Published 2006-12-28

PROBLEM TO BE SOLVED: To improve antistatic function of fiber structure composed of a polyester fiber. SOLUTION: In modifying a fiber structure composed of a dihalogeno-S-triazine based compound containing a hydrophilic substituent group and a polyester fiber dyed with disperse dye by an exhaustion method, when the fiber structure is modified and processed by reaction in the presence of a water-soluble hydrolyzed silk as an auxiliary, a simple substance of a 2,6-dihalogeno-4-Y-1,3,5-triazine derivative represented by general formula (1) or its mixture is used and the fiber structure is processed.

**JP2006342476A - ANTISTATIC PRODUCTION PROCESS OF FIBER
STRUCTURE COMPRISING WOOL**

KANEHISA, KK | OOKASHI TETSUO

Published 2006-12-21

PROBLEM TO BE SOLVED: To provide a fiber structure comprising wool, imparted and improved in antistatic function. SOLUTION: When a dihalogeno-S-triazine based compound having a hydrophilic substituent is reacted with a fiber structure comprising wool by an exhaustion method, a polyhydric alcohol and/or a polyvalent amino compound is reacted, as an auxiliary, to perform modification processing, wherein a simple substance or a mixture of 2,6-dihalogeno-4-Y-1,3,5-triazine derivative represented by general formula of the figure is used for processing.

**JP2006328568A - ANTISTATIC CONJUGATED YARN, ANTISTATIC TEXTILE
AND DUSTPROOF WEAR**

TEIJIN FIBERS LTD

Published 2006-12-07

PROBLEM TO BE SOLVED: To provide an antistatic conjugated yarn having excellent properties of polyester fiber such as fiber strength, excellent in washing resistance, and having excellent antistatic property and low dusting property, to provide antistatic textile, and to provide a dustproof wear. SOLUTION: The conjugated yarn is obtained by using a moisture-absorbing synthetic fiber yarn A having $\geq 1\%$ equilibrium moisture absorption at 20°C and 40% RH and a polyester fiber yarn B, so that the ratio DA/DB of yarn length DA of the moisture-absorbing synthetic fiber yarn A to the yarn length DB of the polyester fiber yarn B is ≥ 0.7 , the textile is woven or knitted by using the elastic conjugated yarn and the dustproof wear is sewn thereof.

JP2006316373A - CONDUCTIVE CONJUGATE FIBER

KB SEIREN LTD

Published 2006-11-24

PROBLEM TO BE SOLVED: To improve antistatic property of a structure blended with a conductive conjugate fiber without deteriorating the designing flexibility. SOLUTION: The conductive conjugate fiber for the conductive yarn of a fiber structure blended with conductive yarn has a conductive layer containing 35-80 wt.% conductive inorganic particles and 0.05-1 wt.% lithium salt and a protecting layer composed of a fiber-forming polymer and bonded to the conductive layer. More preferably, the conductive layer of the conjugate fiber contains 40-80 wt.% conductive inorganic particles and 0.08-0.8 wt.% lithium salt and the specific resistance of the conductive conjugate fiber is $<10^9 \Omega\text{cm}$.

US20060234048A1 - POLYOLEFIN REINFORCING FIBRE, USE THEREOF AND PRODUCTS COMPRISING SAME

SAINT GOBAIN MATERIAUX DE CONSTRUCTION S.A.S.

Published 2006-10-19

The subject of the invention is a polyolefin fiber for the reinforcement of products based on fibers and a hydraulic-setting substance, characterized in that it includes a size carrying a function which assists the fiberizing operation, a function in which the fiber can be wetted by the composition of the hydraulic-setting substance, and a function of promoting adhesion to the hydraulic-setting substance. The fiber is used as reinforcing fiber in a product based on fibers and a hydraulic-setting substance.

JP2006274473A - COMBINED FILAMENT CONJUGATED FIBER AND WOVEN OR KNITTED FABRIC USING THE SAME FIBER

TORAY IND INC

Published 2006-10-12

PROBLEM TO BE SOLVED: To provide a combined filament conjugated fiber affording a dry touch feeling and having excellent drapeability and fullness feeling and further antistatic properties in combination and to provide a woven or a knitted fabric using the fiber. SOLUTION: The combined filament conjugated fiber is a polyester filament yarn having two or more different cross-sectional shapes containing a specific amount of a polymer having high hydrophilicity as an antistatic agent. One thereof is a filament yarn having a cross-sectional shape without a recessed part and the other is a filament yarn having a cross-sectional shape with 3-8 recessed parts. Each filament yarn is combined in a random state. The combined filament conjugated fiber simultaneously satisfies the specific resistance and fiber surface states. The woven or knitted fabric is composed of the combined filament conjugated fiber and has ≥ 30 mm water absorption characteristics according to the Byreck method and ≤ 10 s diffusion rate according to a dropping method.

JP2006274512A - METHOD FOR PRODUCING CONDUCTIVE CONJUGATE FIBER

KB SEIREN LTD

Published 2006-10-12

PROBLEM TO BE SOLVED: To provide a fiber product capable of obtaining good conductive performance even in surface resistance-measuring method and excellent in antistatic performance and endurance. **SOLUTION:** The method for producing a highly oriented and unstretched conductive conjugated fiber comprises carrying out melt-spinning of highly oriented yarn at $\geq 2,000$ m/min spinning rate so that a conductive thermoplastic component composed of a thermoplastic polymer containing carbon black has a conjugate structure covering $\geq 50\%$ fiber surface and the breaking elongation is $\geq 80\%$ and the shrinkage factor in 100°C hot water is $\leq 20\%$. The present invention enables provision of fiber products excellent in antistatic performance and endurance. and enables adaptation to surface resistance-measuring method which plays a central role in Europe and the United States.

WO2006100560A1 - PROCESS AND SYSTEM FOR RETTING PLANT FIBRE FOR TEXTILE USE

GRUPPO FIBRANOVA S.R.L.

Published 2006-09-28

A process and system for retting of plant fibres in a tank comprising the steps of placing crude fibre from scutched plants in a retting bath with a predetermined water / fibre proportion, or steeping ratio; inoculating the retting bath with strains of bacteria; recirculating the retting bath; controlling and keeping at predetermined values at least one of the following parameters: retting bath temperature, pH value, redox value and oxygen content. In the system a tank is provided with means for supporting the immersed fibre; means for recirculating the liquid; means for reading and keeping at predetermined values at least one of the retting liquid parameters consisting of temperature, pH, redox index and oxygen content, and means for blowing air on command into the retting liquid.

JP2006219768A - DISPERSING AGENT FOR PREPARING SPINNING DOPE FOR POLYURETHANE ELASTIC FIBER, SPINNING DOPE FOR POLYURETHANE ELASTIC FIBER AND METHOD FOR PREPARING SPINNING DOPE FOR POLYURETHANE ELASTIC FIBER

TAKEMOTO OIL & FAT CO LTD

Published 2006-08-24

PROBLEM TO BE SOLVED: To provide a dispersing agent for preparing a spinning dope for a polyurethane elastic fiber sufficiently stably dispersing solid fine particles in the spinning dope for the polyurethane elastic fiber and thereby finally affording a package of an excellent package form in a spinning step of the spinning dope for the polyurethane elastic fiber, imparting excellent unwinding properties to the package in a processing step and imparting excellent smoothness and antistatic properties to the unwound fiber, to provide the spinning dope for the polyurethane elastic fiber and to provide a method for producing the spinning dope. SOLUTION: The dispersing agent for the spinning dope for the polyurethane elastic fiber is obtained by using a nitrogen-containing compound having 1-12 nitrogen atoms in the molecule. In the compound, at least one of the nitrogen atoms is the nitrogen atom bound to a hydroxyalkyl group and/or a polyoxyalkylene group.

US7087093B2 - MODIFICATION OF FIBERS OR FABRICS

SHIN ETSU CHEMICALS CO., LTD.

Published 2006-08-08

Fibers are modified by applying a solution of a low substituted cellulose ether having a molar degree of substitution with alkyl and/or hydroxyalkyl groups in the range of 0.05 to 1.0 in an aqueous alkali solution to fibers, and causing the solution borne on fibers to coagulate. The method achieves satisfactory fiber modifications with respect to antistatic property, moisture absorption and shrink resistance without a cumbersome step of dissolution while ensuring safety.

WO2006080634A1 - A POLYURETHANE ELASTIC FIBER HAVING CHLORINE-RESISTANCE ANTISTATIC PROPERTY AND A METHOD FOR PRODUCING THE SAME

HYOSUNG CORPORATION

Published 2006-08-03

The present invention relates to a polyurethane elastic fiber having excellent chlorine-resistance and antistatic property without affecting the original physical properties of polyurethane-polymers, and a method for producing the same. According to the present invention, the polyurethane-elastic fiber may have excellent chlorine-resistance and antistatic property by means of containing hydrotalcite coated with aliphatic alcohol.

JP2006188811A - LAMINATED YARN

TORITEC, KK | TOYOSHIMA & CO LTD | OOMORI MICHIKO
Published 2006-07-20

PROBLEM TO BE SOLVED: To provide a laminated yarn that can retain the antimicrobial activity, even after it repeatedly undergoes washing, and shows excellent heat accumulation prevention, heat barrier property, antistatic properties, electromagnetic wave barrier property and also good appearance. SOLUTION: A synthetic resin film is metallized with an antibacterial metal to form a metallized coat film and the formed synthetic resin films are bonded so that the metallized coated films may come into inside layer and the laminated body in a sandwich structure is cut into slits in the longitudinal direction or the coating layer is formed on the other face of the metallized film formed in order to retain the thermal shielding property.

JP2006176626A - POLYESTER COMPOSITION AND POLYESTER FIBER COMPRISING THE SAME

TEIJIN FIBERS LTD
Published 2006-07-06

PROBLEM TO BE SOLVED: To provide a polyester composition having antistatic property, dyeability and heat stability and excellent in fiber-forming property, and to provide fibers thereof. SOLUTION: The polyester composition comprises a copolyester copolymerized with ≥ 1 mass% but ≤ 8 mass% polyoxyalkylene glycol having ≥ 400 but $< 4,500$ weight-average molecular weight and contains, (A) based on the copolyester, (a) ≥ 0.03 mass% but ≤ 1 mass% titanium dioxide having ≥ 0.1 μm but ≤ 0.5 μm average particle diameter, (b) 0.1-10 mass% organic orthochromatic agent and (c) 5-50 mass ppm monomethyl terephthalate.

JP2006176703A - POLYESTER COMPOSITION AND POLYESTER FIBER COMPRISING THE SAME

TEIJIN FIBERS LTD
Published 2006-07-06

PROBLEM TO BE SOLVED: To provide a polyester having excellent antistatic property, dyeability and heat stability, causing little degradation of physical properties due to heat deterioration, and having good fiber-forming property, and to provide fibers thereof. SOLUTION: The polyester composition comprises a copolyester copolymerized with ≥ 1 mass% but ≤ 8 mass% polyoxyalkylene glycol (POA-1) having ≥ 600 but $< 4,500$ weight-average molecular weight and contains, (A) based on the copolyester, (a) ≥ 0.5 mass% but ≤ 5 mass% alkali metal sulfonate, (b) ≥ 0.3 mass% but ≤ 5 mass% polyoxyalkylene glycol (POA-2) having 8,000 but 30,000 weight-average molecular weight, (c) ≥ 0.03 mass% but ≤ 1 mass% titanium dioxide having ≥ 0.1 μm but ≤ 0.5 μm average particle diameter and (d) 0.1-10 mass ppm organic orthochromatic agent.

JP2006176702A - POLYESTER COMPOSITION, METHOD FOR PRODUCING THE SAME AND POLYESTER FIBER COMPRISING THE SAME

TEIJIN FIBERS LTD

Published 2006-07-06

PROBLEM TO BE SOLVED: To provide a polyester composition having excellent antistatic property, dyeability, bathochromic property, clarity and heat stability, and to provide fibers thereof. SOLUTION: The polyester composition comprises a copolyester copolymerized with ≥ 1 mass% but ≤ 20 mass% aliphatic polycarboxylic acid having ≥ 100 but $< 4,000$ molecular weight and contains, (A) based on the copolyester, (a) ≥ 0.5 mass% but ≤ 5 mass% alkali metal sulfonate, (b) ≥ 0.3 mass% but ≤ 5 mass% polyoxyalkylene glycol having $\geq 10,000$ but $\leq 30,000$ weight average molecular weight, (c) ≥ 0.03 mass% but ≤ 1 mass% titanium dioxide having $\geq 0.1 \mu\text{m}$ but $\leq 0.5 \mu\text{m}$ average particle diameter and (d) 0.1-10 mass ppm organic orthochromatic agent.

EP1052325B1 - SMOOTH POLYESTER FIBER

ASAHI KASEI KABUSHIKI KAISHA

Published 2006-07-05

The present invention discloses a polyester fiber having a birefringence of 0.025 or more, comprising at least 90% by weight of a poly (trimethylene terephthalate), on which a finishing agent composed essentially of (1) an aliphatic hydrocarbon ester having a molecular weight of 300 to 800 and/or a mineral oil having a Redwood viscosity at 30°C of 40 to 500 seconds, (2) a polyether having a structure containing an ethylene oxide unit and a propylene oxide unit, (3) a nonionic surfactant, and (4) an ionic surfactant in a specific proportion is applied. With an application of the specific finishing agent, processability during various steps from the spinning step to the processing step, for example, processability during the spinning and drawing steps, unwinding step from yarn package, false-twist texturing, weaving, and knitting processings are drastically improved, thus obtaining a poly (trimethylene terephthalate) having excellent smoothness, abrasion resistance, cohesiveness and an anti-static electricity property.

JP2006169678A - POLYURETHANE ELASTIC YARN AND METHOD FOR PRODUCING THE SAME

OPELONTEX CO LTD

Published 2006-06-29

PROBLEM TO BE SOLVED: To provide a polyurethane elastic yarn excellent in elastic properties, light resistance, moisture-absorbing and releasing properties, an antistatic property and a moisture-retaining property and suitable as an elastic material for stretch fabrics, clothing, etc and to provide a method for producing the elastic yarn. SOLUTION: The polyurethane elastic yarn is composed of a polyurethane polymerized by using a polymer diol and a diisocyanate as main components and contains a silk protein such as sericin. The method for producing the polyurethane elastic yarn comprises adding a sericin dispersion to a solution of the polyurethane and carrying out solution spinning of the mixture.

EP1087043B1 - SYNTHETIC FIBER CAPABLE OF ABSORBING AND DESORBING MOISTURE, ENTANGLED YARN BLEND USING THE SAME, KNITTED AND WOVEN GOODS USING THE SAME, AND NONWOVEN FABRIC USING THE SAME

UNITIKA LTD.

Published 2006-06-14

A synthetic fiber capable of absorbing and disabsorbing moisture comprising a component capable of absorbing and disabsorbing moisture and a fiber-forming polymer. The fiber of the present invention has a moisture absorption of 1.5% or more when it is allowed to reach a moisture equilibrium under the circumstance of 25°C × 60%RH and then is allowed to stand for 30 min. under the circumstance of 34°C × 90 %RH, and has a moisture disabsorption of 2% or more when it is allowed to reach a moisture equilibrium under the circumstance of 34°C × 90%RH and then is allowed to stand for 30 min. under the circumstance of 25°C × 60%RH. The fiber also has a value of -1 to 5 in terms of b value in the CIE-LAB color system when it is allowed to stand for 30 days.

JP2006118094A - REINFORCING AGENT FOR SYNTHETIC FIBER AND METHOD FOR REINFORCING THE SYNTHETIC FIBER

AYUKAWA TAIZO | YOU TECH, KK

Published 2006-05-11

PROBLEM TO BE SOLVED: To provide a reinforcing agent for a synthetic fiber, capable of preventing a run from being developed in a product of the synthetic fiber (especially, a straight-chain aliphatic polyamide having amide groups, e. g., nylon), for example, in a pair of panty hose for ladies, and to provide a method for reinforcing the synthetic fiber. SOLUTION: This reinforcing agent for the synthetic fiber contains a sucrose fatty acid ester, sodium malate, and sodium bicarbonate as main components. The synthetic fiber reinforced by the agent does not develop the run at all, is comfortable to be worn, and has antistatic properties.

WO2006042904A1 - ANTISTATIC FIBRES

IONPHASE OY

Published 2006-04-27

A non-chargeable or weakly chargeable fiber structure suitable for the use in, e. g., fabrics and filters, as well as a method for producing it. The fiber according to the invention comprises a core produced of a polymer material, which is at least partly electrically conductive or has antistatic properties, as well as a sheath composed of a thermoplastic polymer surrounding the core. The core according to the invention contains an ionically conductive polymer, whereby the charge decay time of the fiber is less than 10 s determined according to Standard IEC 61340-5-1, and the surface resistivity of the fiber is the same or essentially the same as the material of the sheath layer.

Centexbel PatentAlert 3-2008

EP1356142B1 - NON-POSTDRAWN POLYOLEFIN FIBERS WITH HIGH TENACITY

BOREALIS POLYOLEFINE GMBH

Published 2006-04-19

The invention relates to non-postdrawn polyolefin fibers with high tenacity values of 2,0 to 5,0 cN/dtex, consisting essentially of predominantly isotactic propylene polymers having a crystallisation temperature of < 116°C (DSC) and 0,001 to 2 % by weight, based on the propylene polymers used, of α -nucleating agents a process for producing them and their use.

JP2006097196A - ANTISTATIC FIBER AND METHOD FOR PRODUCING THE SAME

TORAY IND INC

Published 2006-04-13

PROBLEM TO BE SOLVED: To provide an antistatic fiber which has an excellent antistatic performance under low humidity environments, has high whiteness, and can easily be produced. SOLUTION: This antistatic fiber is characterized by comprising a polyester-based thermoplastic resin A, a polyester-based thermoplastic resin B containing conductive metal oxide fine particles, and an antistatic component C comprising the following components a to d (a: one compound selected from amino carboxylic acids, lactams, and diamine-dicarboxylic acid salts; b is a poly(oxyalkylene oxide) glycol; c: a polyetheresteramide comprising a 4 to 20C dicarboxylic acid; d: an organic sulfonate compound), wherein the resin B is uniformly dispersed in the resin A, and the component C forms a longitudinally continuous and independent streak-like dispersion phase in the continuous phase comprising the resin A and the resin B.

JP2006097145A - FIBER COMPOSITE MATERIAL AND USE THEREOF

KANEBO LTD | KANEBO SYNTHETIC FIBERS LTD

Published 2006-04-13

PROBLEM TO BE SOLVED: To provide a fiber product having good conductive performance even by a surface resistivity measuring method and excellent antistatic performance and durability. SOLUTION: The fiber composite material contains a conductive conjugate fiber composed of a conductive thermoplastic component and a fiber-forming component. The conductive conjugate fiber has a conjugate structure to cover $\geq 50\%$ of the fiber surface with a thermoplastic polymer containing carbon black and an elongation at break of 80-250% and is produced by conjugated melt spinning.

EP1141454B1 - THERMOPLASTIC FIBERS AND FABRICS

DOW GLOBAL TECHNOLOGIES INC.

Published 2006-03-29

Fibers comprising one or more thermoplastic hydroxy-functionalized polyethers or polyesters, prepared by the reaction of a dinucleophilic monomer with a diglycidyl ether, a diglycidyl ester or epihalohydrin and, optionally a polymer which is not a hydroxy-functionalized polyether or polyester, including polyolefin, polyester, polyamide, polysaccharide, modified polysaccharide or naturally-occurring fiber or particulate filler; thermoplastic polyurethane, thermoplastic elastomer or glycol-modified copolyester.

JP2006063503A - FIBER MATERIAL AND METHOD FOR FINISHING THE SAME

DAIWA KAGAKU KOGYO, KK

Published 2006-03-09

PROBLEM TO BE SOLVED: To provide a fiber material in which strong endurance is imparted to antistatic finish which is difficult to have endurance. SOLUTION: The present invention finds a material having both of the water-absorbing property and the antistatic property, specifically a specific modified polyester resin from among resin-based components in which endurance can be expected without using, as a main component, a surfactant generally used and selects a combinedly used resin for improving endurance, specifically a specific urethane resin and enables antistatic finish having endurance by combinedly finishing those two components.

EP1291405B1 - COMPOSITION FOR FAR INFRARED IRRADIATION WITH EXCELLENT ANTISTATIC PROPERTY AND FIBER AND TEXTILE PRODUCT BOTH CONTAINING THE SAME

KOMURO, TOSHIO

Published 2006-03-01

The present invention is related to a composition, which comprises alumina, at least one of silica and titanium oxide, at least one of platinum, palladium, iridium, rhodium, and compounds thereof, and at least one of silver and a silver compound in order to provide a powder and/or a composition and a fiber having incorporated thereinto a powder and/or a composition, being capable of uniformly emit far infrared rays at high efficiency as well as having excellent durability and transparency. In addition, the present invention is related to a mixture containing the above composition and a synthetic polymer material, a fiber having incorporated thereinto the above mixture, and fiber products using the above fiber.

JP2006052523A - LAMINATED YARN

TORITEC, KK | OOMORI MICHIKO | TOYOSHIMA & CO LTD
Published 2006-02-23

PROBLEM TO BE SOLVED: To provide a laminated yarn that can retain the antimicrobial activity, even after it repeatedly undergoes washing, and shows excellent heat accumulation prevention and antistatic properties. SOLUTION: A synthetic resin film is metallized with an antimicrobial metal to form the metallized layer and a pair of the metallized films are laminated so that the metallized layer may come to the inner side and the resultant laminated body of a sandwich structure is cut in the longitudinal direction into strips.

JP2006045715A - POLYESTER FIBER

TORAY IND INC
Published 2006-02-16

PROBLEM TO BE SOLVED: To provide a polyester staple fiber scarcely causing a change in feeling of easily slipping even after washed, by keeping the feeling of easily slipping excellent as well, further scarcely causing entanglement of the fiber of a product, such as a padded mattress after processed, after the product is washed, to say nothing of scarcely causing the entanglement before washed, and therefore optimal for a wadding raw material. SOLUTION: This polyester fiber is coated with a finish which is resinified on a surface of the fiber, wherein the finish contains [A] a carboxy-modified silicone, [B] an amino-modified silicone, and [C] an aminoalkoxysilane as essential components. The polyester fiber is obtained by crimping a polyester fiber, applying the finish to the fiber in an amount of 0.4-0.6 wt%, heat-treating the fiber at 150-160°C, and applying an antistatic agent to the fiber in an amount of 0.1-0.3 wt%.

JP2006016744A - TREATING AGENT FOR SYNTHETIC FIBER AND METHOD FOR TREATING SYNTHETIC FIBER

TAKEMOTO OIL & FAT CO LTD
Published 2006-01-19

PROBLEM TO BE SOLVED: To provide a treating agent for a synthetic fiber, capable of sufficiently preventing fluff, yarn break and uneven dyeing from being caused so as to correspond to the recent speeding up of a spinning process and a finishing process of the synthetic fiber; and to provide a method for treating the synthetic fiber. SOLUTION: The treating agent for the synthetic fiber contains (A) one or more selected from specific alkylene oxide adducts, (B) a specified polyoxyalkylene-modified silicone, (C) one or more selected from specific antioxidants, and (D) one or more selected from an emulsifier, an antistatic agent and a lubrication auxiliary agent, regulated so that the agent may contain ≥ 70 wt.% of the total of the four components, and the contents of the components (A), (B), (C) and (D) may be 55-92 pts. wt., 0.3-5 pts. wt., 0.1-3 pts. wt. and 0.6-44 pts. wt. respectively based on 100 pts. wt. total of the four components.

JP2006009221A - TREATING AGENT FOR ELASTIC FIBER AND ELASTIC FIBER

MATSUMOTO YUSHI SEIYAKU CO LTD

Published 2006-01-12

PROBLEM TO BE SOLVED: To provide a treating agent excellent in antistatic property and usable as a treating agent for elastic fibers. SOLUTION: The treating agent for elastic fibers is obtained by mixing 100 pts. wt. at least one base component selected from silicone oils, mineral oils and ester oils, with 0.1-10 pts. wt. anionic surfactant with a univalent cation and 0.1-10 pts. wt. anionic surfactant with a bivalent cation. The elastic fibers to which the treating agent is imparted is provided.

JP2006009192A - FABRIC CONTAINING POLYAMIDE FIBER AND METHOD FOR PRODUCING THE SAME

KOMATSU SEIREN CO LTD

Published 2006-01-12

PROBLEM TO BE SOLVED: To provide a fabric containing a polyamide fiber and having excellent color fastness and yellowing resistance while keeping antistaticity durable to washing and provide a method for producing the fabric. SOLUTION: The fabric is produced by applying an antistatic agent and at least one compound selected from polyhydric phenol derivatives expressed by general formula (1) or general formula (2) to a fabric containing a polyamide fiber. The method for producing the fabric comprises the treatment of a fabric containing a polyamide fiber with a treating liquid containing at least one compound selected from the polyhydric phenol derivatives of general formula (1) or (2) and an antistatic agent. In the general formula (1), X is a halogen group selected from chlorine, fluorine and bromine; and Y is an arylamino, an aryloxy, an arylmercapto, an alkylamino, an alkoxy, an alkylthio, a triazinylamino, a triazinylthio, a triazinylthio or a triazinylaminostilbenamino group substituted with at least one group selected from sulfo group, carboxy group, hydroxy group and thiol group wherein the hydrogen atom of the sulfo group, carboxy group, hydroxy group and thiol group may be replaced with an alkali metal atom or an alkaline earth metal atom. In the general formula (2), R is an alkyl; and M is hydrogen atom or an alkali metal atom or an alkaline earth metal salt.

JP2006002258A - ANTISTATIC POLYESTER FIBER BLEND

ASAHI KASEI FIBERS CORP

Published 2006-01-05

PROBLEM TO BE SOLVED: To provide a polyester fiber blend having excellent antistatic properties and satisfying even a stretch feeling. SOLUTION: The blend is composed of polyethylene terephthalate fibers and polytrimethylene terephthalate fibers. The polyethylene terephthalate fibers have a sheath-core structure in 60-90% ratio of a sheath and an antistatic polymer containing polyethylene glycol and an electrolyte is dispersed in the form of grains in a core part. The number of the grains is ≤ 20 . The content of the polyethylene glycol is 0.5-2.0 wt.% and the content of the electrolyte is 0.01-0.1 wt.% in the polyethylene terephthalate fibers.