

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US20070049148A1 - THERMOPLASTIC COMPLEX YARN WITH THERMOFORMING FUNCTION AND THERMOPLASTIC FABRIC THEREWITH

Chien, Hung, Kung; Chang, Shao, Hua (Inventors)

Published 2007-03-01

A thermoplastic complex yarn with thermoforming function and thermoplastic fabric therewith are provided. The thermoplastic complex yarn is formed according to a low temperature hot melt fiber wound around the peripheral of a high strength fiber. The thermoplastic complex yarn can be further alternant-plaited with a general yarn to form as a thermoplastic fabric. And, when the thermoplastic complex yarn or the thermoplastic fabric is under hot pressing by a hot-pressing die, the low temperature hot melt fiber can be thermoformed, and further collocated with the high strength fiber for supporting, thus, the thermoplastic complex yarn or the thermoplastic fabric can be formed into various shapes by various hot-pressing dies for increasing the application field thereof, and which can be as the major material of the external package box, such that achieves the purpose of ecology environment protection.

US20080265469A1 - DEVICE AND METHOD FOR PREPARING FILAMENT YARN OF COMPOSITE NANOFIBERS

Li, Xinsong; Yao, Chen; Sun, Fuqian (Inventors)

Published 2008-10-30

Device and method for preparing filament yarn of composite nanofibers. The device includes pairs of electrospinning nozzles on a frame and filament guiding roller pair under the frame. The spouts of each pair of nozzles are oppositely facing. The method includes feeding polymer solutions to the pairs of nozzles, applying high DC voltage with opposite polarity respectively to each one of the pairs of nozzles, forming composite nanofibers by attracting nanofibers with opposite charge from each nozzle and striking together of the charged nanofibers, pulling/stretching the composite nanofibers to form filament yarn of composite nanofibers, drawing down the filament yarn of composite nanofibers from the first pair of nozzles and using it as a carrier to receive the nanofibers with opposite charge electrospun from the second pair of nozzles and coated by the same so as to form multi-layer (e.g., two- or more-layer) filament yarn of composite nanofibers.

US20060201128A1 - FIREPROOF COMPOSITE YARN COMPRISING THREE TYPES OF FIBERS

Paire, Christian; Lanier, Thierry (Inventors)

Published 2006-09-14

A fireproof composite yarn includes:-flameproof fibers at a quantity of more than 40 percent relative to the total weight of the yarn, the fibers being made of a crystalline or semicrystalline polymeric material;-hydrophilic fibers at a quantity ranging between 10 and 45 percent relative to the weight of the flameproof fibers, the hydrophilic fibers being made of an infusible material;-thermostable fibers at a quantity ranging between 4 and 50 percent relative to the total weight of the yarn, the thermostable fibers being made of a non-flammable material. The invention also relates to a fabric having at least one woven or knitted textile layer made of such a yarn.

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US20080022650A1 - COMPOSITE YARN AND PROCESS FOR PRODUCING THE SAME

Pascoe, William M.; Goineau, Andre M.; Marcus, Brenda W. (Inventors)

Published 2008-01-31

A process for producing composite yarns comprises the steps of first wrapping a second yarn around the perimeter of and along the length of a first yarn and then heating the yarn intermediate produced by such wrapping to produce a composite yarn. When a heat-shrinkable yarn is used in producing such a composite yarn, the shrinkage of the heat-shrinkable yarn enables the production of composite yarns possessing aesthetic qualities similar to those exhibited by yarns produced by much more complicated processes, such as boucle and chenille yarns.

US20070148449A1 - 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.

US20070299237A1 - AGENT AND METHOD FOR TREATING BIODEGRADABLE SYNTHETIC YARNS WHICH ARE TO BE SUBJECTED TO A FALSE TWISTING PROCESS

Yamakita, Hiroshi (Inventor)

Published 2007-12-27

An agent and method for treating biodegradable synthetic yarns fabricated from a polymer comprising lactic acid as a main component, which enable improved lubricity, cohesion, etc. to be so imparted to the biodegradable synthetic yarns that the yarns can be prevented from fuzzing and breaking at every step from spinning to down-stream step, especially at a false twisting step and improved in terms of bulkiness, providing yarns having improved mechanical properties in a stable manner. The agent of the invention comprises 0.1 to 30 weight % of a specific functional agent, and a lubricant and a surfactant in the total amount of 70 weight % or greater, and has a friction coefficient in the range of 0.04 to 0.35.

US20070141335A1 - EXPANSIBLE YARNS AND THREADS, AND PRODUCTS MADE USING THEM*Perera, Willorage, Rathna; Mauretti, Gerald, J. (Inventors)*

Published 2007-06-21

A precursor yarn or thread is made by passing a central element, e.g., a filament, a tow, or a flat member, through a bath of a binder, such as a low-temperature hot-melt adhesive, and aqueous urethane, or an acrylic material, with which is mixed a quantity of hard-shelled microspheres which expand when heated to a higher temperature. This is then covered by a sheath, e.g., of PVC, polyurethane, polyester, acrylic resin, polycarbonate, polypropylene, or polyethylene in a second bath. When this product is heated to a transition temperature which is characteristic of the microspheres chosen, the microspheres expand, swelling the sheath. Such a precursor could be woven into a fabric and then heated, so that as the yarn expands the fabric mesh becomes tighter, reducing its porosity. This would be useful as a yarn in making papermaker's felts. Heat-expansible threads made similarly would be useful in manufacture of shoes, sails, tents, clothing and other items where porosity is undesirable; that is, the product could be sewn together using the thread of the invention and then heat-treated, causing the thread to expand, sealing the holes made in sewing. Such threads would also be useful for decorative purposes, e.g., as embroidery yarns, and likely for other purposes. The yarns of the invention can also be disposed in a desired position and infused with a hardening resin while heat is applied to cause the microspheres to expand, forming a lightweight and stiff composite structure.

US20080182471A1 - YARNS FOR CUT-RESISTANT WEBBING AND OTHER PRODUCTS*Danzev, Lee B. (Inventor)*

Published 2008-07-31

Improved yarns the properties of which can be altered by heat treatment for various products are disclosed, as well as product made therewith and processes thereof. The yarns of the invention comprise a multifilamentary core of a comparatively lower melting point material, such as polypropylene or polyethylene, which is wrapped in both S and Z directions (that is, both clockwise and counterclockwise) by multifilamentary strands of a higher melting point material, such as polyester. For providing cut and abrasion resistance to webbing and products made therefrom, such as cargo lifting slings and the like, on the order of 8-12 such yarns are woven into the edges of webbing material, such that they contact one another. Upon heat treatment, the material of the multifilamentary core melts to the extent that it wicks into and "wets out" the material of the multifilamentary wrappers; upon cooling, the filaments of the wrapper are disposed in a solidified matrix of the core material, forming a comparatively hard, tough material, and the adjacent yarns are bonded to one another to some degree.

US20060234578A1 - FIREPROOF COMPOSITE YARN COMPRISING TWO TYPES OF FIBERS*Paire, Christian (Inventor)*

Published 2006-10-19

A fireproof composite yarn includes between 80 and 90 percent by weight of flameproof fibers containing a polymeric material based on polyvinyl alcohol, between 10 and 30 percent by weight of at least one type of thermostable fibers made of a non-flammable material. The invention also relates to a fabric having at least one woven or knitted textile layer that is made of such a yarn.

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US20070257404A1 - POLYESTER CONJUGATED YARN HAVING HIGH SELF-CRIMPING PROPERTIES AND METHOD OF MANUFACTURING THE SAME

Kim, Do, Kyoon; Lee, Jae, Hong; Kim, Sun, Woo; Choi, Young, Geun (Inventors)

Published 2007-11-08

Disclosed is a polyester conjugated yarn, including two types of polymers having a large intrinsic viscosity difference subjected to bi-component spinning so as to be longitudinally arranged in a side-by-side sectional structure, in which the two types of polymers are polyethyleneterephthalate having intrinsic viscosity of 0.45-0.65 as a first polymer and polytrimethyleneterephthalate having intrinsic viscosity of 0.90-1.10 as a second polymer. The polyester conjugated yarn is advantageous in terms of superior spinnability and high uniformity index. In addition, the polyester conjugated yarn can exhibit high self-crimping properties through relaxation-heat treatment of the dyeing and finishing process, and as well, can be applied to manufacture woven/knit fabrics having softness to the touch, beautiful colors, and high drapery and bulk properties, due to inherent characteristics of polytrimethyleneterephthalate.

US20060185343A1 - YARNS, PARTICULARLY YARNS INCORPORATING RECYCLED MATERIAL, AND METHODS OF MAKING THEM

Coombs, Timothy (Inventor)

Published 2006-08-24

Enhanced performance yarns which comprise, and are functional and economic alternatives to, 100% petroleum oil based virgin continuous filament yarns, and yarns of natural fibers and methods of making them. The yarns may comprise an inner portion of spun staple fibers of recycled plastic and an outer portion comprising a different material and incorporate highly significant amounts of recycled plastics, particularly post consumer recycled (PCR), thermoplastic material such as polyethylene terephthalate (PET) which contains medium to high levels of contamination. One embodiment of yarn comprises a core, an inner portion of spun staple fibers surrounding the core, and an outer portion comprising an inner helix and an outer helix formed of a material different from the inner helix.

US20060177658A1 - POLYESTER COMPOSITE THICK AND FINE YARN AND METHOD FOR PROCESS FOR PRODUCING SAME, AND METHOD FOR PRODUCTION THEREOF AND WOVEN OR KNITTED FABRIC THEREFROM

Shigemura, Yukihiro (Inventor)

Published 2006-08-10

A polyester composite thick-and-thin multifilament yarn having a natural fiber grandrelle yarn-like appearance and spun yarn-like appearance and hand is constituted from a polyester thick-and-thin multifilament yarn (A) having thick and thin portions alternately arranged with each other and a polyester multifilament yarn (B) having a high dyeability and a uniform thickness and, in each composite thick portion of the composite yarn, the individual filaments of the yarn (B) forms a core part and the thick portions of the individual filaments of the yarn (A) are distributed around the core part to form a sheath part; and, in each composite thin portion of the composite yarn, the individual filaments of the yarn (B) and the thin portions of the individual filaments of the yarn (A) are distributed in random mixture with each other; and, when the composite yarn is dyed, the composite thick portions are colored in a lighter color and the composite thin portions are colored in a darker color.

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US20080183208A1 - INORGANIC-ORGANIC MELT-EXTRUDED HYBRID YARNS AND FIBROUS COMPOSITE MEDICAL DEVICES THEREOF

Shalaby, Shalaby W.; Clinkscales, Kenneth W.; Carpenter, Kimberly A. (Inventors)

Published 2008-07-31

Composite fibrous constructs are made of combinations of inorganic-organic hybrid monofilament or multifilament yarns containing at least 6 weight percent of inorganic micro-/nanoparticles and organic monofilament or multifilament yarn with typical examples of the hybrid yarn matrix made of absorbable or non-absorbable thermoplastic polymers and final constructs being in the form of knitted or woven meshes and braided ligatures intended to perform under specific mechanically, biologically, and/or radiologically related functions.

US20070251206A1 - RECYCLABLE CHENILLE YARN

Kline, Ann Margaret; Hughes, Johnny (Inventors)

Published 2007-11-01

A recyclable chenille yarn comprising a core yarn and an effect yarn wherein at least one of the core yarn and effect yarn comprises a natural fiber selected from the group consisting of bamboo, kudzu, potato, tobacco, alpaca, banana, coconut, kenaf and soybean.

US20080299855A1 - CORE YARN AND WOVEN AND KNITTED FABRIC

Morihashi, Toshifumi (Inventor)

Published 2008-12-04

It is an object of the present invention to provide a core yarn capable of spinning the higher-grade yarn having the higher yarn count from specified lower-grade raw material and the core yarn makes its texture-feeling, strength and extension rate equal to that of natural fibers. The core yarn is formed of spun yarn including the core formed of filament yarn and the sheath formed of staple, and the filament yarn is a monofilament false twist textured yarn.

US20080241532A1 - COMPOSITION FOR YARNS, YARNS POSSESSING IMPROVED PROPERTIES AND USE OF THESE YARNS

Wattenhofer, Christian; Schaffner, Paul (Inventors)

Published 2008-10-02

The invention relates to a composition for yarns, fibres or filaments which can be deposited on these yarns, fibres or filaments in order to improve the properties of these yarns, fibres or filaments, in particular the resistance to abrasion. The invention also relates to a process for producing these yarns, fibres or filaments, and also to a rope comprising these yarns, fibres or filaments, and to their use.

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US20060236466A1 - EFFECTIVELY PRINTABLE POLYIMIDE YARN, PROCESS FOR MAKING THE SAME, AND FABRIC PRODUCED THEREFROM

Lin, Perry; Champaneria, Nitin (Inventors)

Published 2006-10-26

A method of manufacture of a rapid dyeing, deep dyeing, open structure polyamide yarn and to the yarn and to a fabric produced from the yarn includes the step of applying an aqueous finish to substantially all of the rapid dyeing, deep dyeing, open structure polyamide filaments. The aqueous finish consists essentially of a fluorosurfactant dissolved in water that is applied to bulked continuous filament yarn at an effective concentration level of preferably 150 to 600 parts per million by weight of fluorine on yarn. The aqueous fluorosurfactant finish is applied at a point after texturizing and before windup.

US20080302079A1 - STRAIGHT-TYPE FINISH FOR SYNTHETIC FIBERS, PROCESSING METHOD FOR FALSE TWISTED TEXTURED YARNS USING SAME, AND FALSE TWISTED TEXTURED YARNS

Aratani, Satoshi; Toda, Atsushi; Hattori, Makoto (Inventors)

Published 2008-12-11

A straight-type finish, which has improved storage characteristics and is capable of preventing synthetic fibers from becoming electrically charged and uneven dyeing from being generated, contains a lubricant and a functional improvement agent at specified ratios. A metal organic sulfonate of a specified type is contained at least as a part of the functional improvement agent at a specified mass % of the total.

US20070166507A1 - YARN FOR AN ARTIFICIAL TURF GROUND COVER, ARTIFICIAL TURF GROUND COVER AND PLAYING FIELD INCLUDING SUCH A YARN AND METHOD FOR PRODUCING SUCH A YARN

Atsma, Franke; Wildschut, Durk (Inventors)

Published 2007-07-19

A yarn for strands of an artificial turf ground cover, including a tape filament having a core layer and two outer layers of a different material than the core layer, each on one of two opposite sides of the core layer. The core layer contains at least polyester or polyolefin material, and the outer layers contain high-density polyethylene. An artificial turf ground cover and a playing field including such a yarn and a method for producing such a yarn are also described. The high-density polyethylene has a relatively small coefficient of friction with the human skin and the yarn has a good shape recovery after deformation in spite of containing HDPE in outer layers.

US20070112110A1 - COMPOSITION FOR PRODUCING POLYESTER AND POLYAMIDE YARNS WITH IMPROVED MOISTURE MANAGEMENT PROPERTIES

McSheehy, Brendan, F.; Roark, Milton, K.; Studholme, Matthew, B. (Inventors)

Published 2007-05-17

Fibers for use in making textiles and floor coverings are made from a moisture management composition that includes polyesters or polyamides and polyoxyalkyleneamines.

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US20080289312A1 - COMPOSITE YARN AND CUT-RESISTANT GLOVE USING THE YARN

Takada, Teruyoshi (Inventors)

Published 2008-11-27

A composite yarn is provided which comprises a core and a covering layer formed by wrapping a covering fiber around the core, the core being composed of a metal thin wire and an attending yarn comprising a filament yarn, wherein the attending yarn is wound around the metal thin wire at 5 to 60 turns per meter of the metal thin wire. A cut-resistant glove formed of the composite yarn is also provided. The composite yarn of the present invention is preferably usable for protective products such as protective fabrics, protective clothes, protective aprons and protective gloves used for protecting workers and a cut-resistant glove formed of the composite fiber is excellent not only in moisture absorption property, but also in putting-on-feeling, use feeling and workability in the state of being put on.

US20080238176A1 - SYNTHETIC YARN HAVING A MULTI-YARN EFFECT

Wang, Oliver (Inventors)

Published 2008-10-02

Synthetic yarns are formed from polymer materials which preferably are self-twisted to give a multi-yarn effect. The yarns are used to form woven panels for use in furniture. The single strand yarns have the appearance of multiple strands, while saving on the heating and twisting involved with handling multiple strands.

US20070006400A1 - YARN AND FABRIC WITH ZONES OF VARIABLE HEAT SET CHARACTER

Brown, Robert; Pascoe, William (Inventors)

Published 2007-01-11

Yarns and fabrics formed from such yarns incorporating an arrangement of discrete zones of variable heat treat history thereby imparting differential dye affinity and structural character at discrete zones along the yarn length. The differential dye affinity permits variable shading along the yarn length when the yarn is subjected to a dye bath. Processes and equipment for manufacturing such yarns are also provided.

US20080092511A1 - DOUBLE COVERED LYCRA SOFT YARN

Jeong, Chang Min (Inventors)

Published 2008-04-24

This invention relates to the Lycra Soft yarn double covered with nylon to prevent twisting and to maintain elasticity. The double covered Lycra Soft yarn of this invention is characterized by being polyurethane based and double covered with heat treated nylon high speed textured yarn, in order to prevent twisting and to maintain elasticity after processing. According to the art of this invention, the Lycra Soft yarn can maintain elasticity and be protected from twist.

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EP1920096A2 - YARNS CONTAINING SILICONIZED MICRODENIER POLYESTER FIBERS

ALBANY INTERNATIONAL CORP.

Published 2008-05-14

The invention relates to a yarn containing siliconized micro-denier polyester fibers and macro-denier fibers. The blending ratio of the siliconized micro-denier polyester fibers and macro-denier fibers in the yarn ranges between about 10 to about 90 and about 90 to about 10 percent by weight. The macro-denier fiber of the yarn is selected from the group consisting of a synthetic fiber, a natural fiber, and a combination of synthetic and natural fibers. The invention also relates to a woven or knitted fabric and articles of clothing containing the yarn of the invention, either alone or in combination with other yarns.

EP1869129A2 - DYED POLYOLEFIN YARN AND TEXTILE FABRICS USING SUCH YARNS

AQUADYE FIBERS, INC.

Published 2007-12-26

A novel polyolefin textile fabric knitted woven and non-woven that in one aspect of the invention is disperse dyed to a light, medium or deep solid hade. In another aspect, the textile fabrics of the present invention are manufactured using polyolefin yarns that contain variable amounts of dye acceptor additives. A fabric with more than one tone of a color is dyed in a single dye bath. The fabrics and yarn using this invention can be processed using conventional spinning, weaving, knitting, web forming machines and will dye using existing dyeing and finishing systems. This invention is of particular value in the apparel and home furnishings industry.

EP1861430A1 - DYED OLEFIN YARN AND TEXTILE FABRICS USING SUCH YARNS

AQUADYE FIBERS, INC.

Published 2007-12-05

A disperse dyeable fiber or filament is comprised principally of polyolefin modified with PETG to accept the disperse dyes. The combining of maleic anhydride with the PETG provides good dispersion of the PETG for uniform dye results. Novel textile fabric, knitted, woven and non-woven, can be formed with yarns or fibers formed in accordance with the invention. In one aspect of the invention, fabric can be disperse dyed to a light, medium or deep solid shade. In another aspect, the textile fabrics are manufactured using olefin yarns that contain variable amounts of dye acceptor additives. A fabric with more than one tone of a color thus can be dyed in a single dye bath. The fabrics and yarn according to this invention can be processed using conventional spinning, weaving, knitting, web forming machines and will dye using existing dyeing and finishing systems. This invention is of particular value in the apparel and home furnishings industry.

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WO2008083820A1 - PRODUCTION OF SOFT YARNS

BALTA INDUSTRIES NV / DESSEIN, MARC / LAMMENS, JOHAN / LANNOY, WIM

Published 2008-07-17

This invention relates to a process for the preparation of synthetic fibres for yarns, in which a polymer mass is melted under pressure and then forced through a spinning block to form fibres, and in which the fibre bundle thus obtained is cooled, wherein a slip agent and a softening polymer are added to the molten polymer stream, so that the hand of the synthetic fibres are improved. The invention also relates to the synthetic fibres for yarns, made in this way. The invention further relates to the use of a slip agent in combination with a softening polymer in the production of synthetic yarns for carpets as a means for improving the softness of the produced synthetic fibres.

US7185481B2 - CUT RESISTANT YARNS FOR GLOVE AND SLEEVES, GLOVES AND SLEEVES MADE WITH SUCH YARNS AND METHODS OF MAKING SUCH CUT RESISTANT YARNS

BANOM, INC.

Published 2007-03-06

Cut resistant yarns suitable for knitting gloves and sleeves and methods of making the yarns are disclosed. The yarns are made up of a bundle of continuous filaments formed of a synthetic material, e.g., polyethylene, polypropylene, nylon or polyolefin, and a stretchable yarn, e.g., Spandex[®] or Lycra[®]. The yarns are made in such a manner that when completed the continuous filaments are substantially parallel to one another and to the longitudinal axis of the yarn so that items made from them will not twist or curl up, yet will provide good resistance to cutting.

US20070251021A1 - AMYLOSE STARCH PRODUCTS AS SIZING AGENTS FOR TEXTILE YARNS

BASF PLANT SCIENCE GMBH

Published 2007-11-01

The invention relates to the use of chemically unmodified amylose-type starch products as sizing agent for sizing natural and/or synthetic yarns. The invention also relates to a process for sizing natural and/or synthetic yarns using chemically modified amylose-type starch products as sizing agent.

EP1609896B1 - PROCESS FOR DEPOSITING MICROCAPSULES INTO MULTIFILAMENT YARN AND THE PRODUCTS PRODUCED

BERLINGER, MATHIAS

Published 2008-07-30

The invention is directed to a process for depositing additives into a yarn having multi-filaments comprising steps of; separating the multi-filaments of the yarn into individual filaments while winding the yarn; injecting the additive onto the individual filaments; and promoting the individual filaments of the yarn to close up one against the other whereby the additive are entrapped within the multi-filaments. The invention also concerns an apparatus for depositing microcapsules into a multi-filaments of a yarn and the multifilament yarn produced.

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EP1491668B1 - TEXTILE YARN

BLOCH, KLAUS

Published 2006-12-27

Textile thread has ultra strong core in plaited polytetrafluoroethylene sheath for e.g. salt water angling line, tents, weather-awnings, protective clothing A textile fibre has a core formed of ultra-strong synthetic, or organic, endless fibres. The core is surrounded by a sheath that is a plaited polytetrafluoroethylene (PTFE) narrow foil plaited in the S-direction and Z-direction, or vice versa. One full side of the foil is in contact with the core. The 1-2 mm wide foil 220-880 dtex strips are applied to the core at a rate of 200-400 rpm. The core has a tear resistance rating of 3 cN/dtex.

EP1482079B1 - TEXTILE YARN, FABRIC AND COMPONENT MADE THEREFROM

BLOCH, KLAUS

Published 2007-07-11

Textile thread for a folding bellows comprises multiple filament yarn made from organic synthetic fibers surrounding a core textile thread comprises multiple filament yarn surrounding a core. The yarn has high strength and is made from organic synthetic fibers having a fineness tear resistance of at least 3 cN/dtex and a tear expansion of less than 22%. The core is rubber elastic and is made from a monofilament or a thermoplastic elastomer. Textile thread comprises multiple filament yarn surrounding a core. The yarn has high strength and is made from organic synthetic fibers having a fineness tear resistance of at least 3 cN/dtex and a tear expansion of less than 22%. The core is rubber elastic and is made from a monofilament or a thermoplastic elastomer having a tear expansion of at least 35% which is twisted by the multiple filament yarn in the S-and/or Z-direction. Independent claims are also included for the following: Textile fabric made from the textile thread; and Body made from the textile fabric.

EP2006422A1 - CORE SPUN YARN AND WOVEN STRETCH FABRIC

CENTRAL TEXTILES (HK) LIMITED

Published 2008-12-24

A core spun yarn comprising a bi-component polyester filament and an elastomeric fiber. The polyester filament has a denier from about 20 to about 150 and the elastomeric fiber has a denier from 20 to 140. The polyester filament is about 2 weight percent to about 60 weight percent, based on total weight of the yarn and the elastomeric fiber is from about 1 percent to about 40 percent, based on total weight of the yarn. The elastomeric fiber may have higher draft than the bi-component polyester fiber. The polyester filament comprises poly (trimethylene terephthalate) and at least one polymer selected from the group consisting of poly (ethylene terephthalate) and poly (tetramethylene terephthalate) and said elastomeric fiber is spandex. The yarn may include a sheath of at least one staple fiber. The disclosure also includes a fabric of the bi-component polyester filament and an elastomeric fiber.

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US7087300B2 - FIRE RETARDANT AND HEAT RESISTANT YARNS AND FABRICS INCORPORATING METALLIC OR OTHER HIGH STRENGTH FILAMENTS

CHAPMAN THERMAL PRODUCTS, INC.

Published 2006-08-08

Fire retardant and heat resistant yarns, fabrics, and other fibrous blends incorporate one or more fire retardant and heat resistant strands comprising oxidized polyacrylonitrile and one or more strengthening filaments such as metallic filaments (e.g., stainless steel), high strength ceramic filaments, or high strength polymer filaments. Such yarns, fabrics, and other fibrous blends have a superior tensile strength, cut resistance, abrasion resistance, LOI, TPP and continuous operating temperature compared to conventional fire retardant fabrics. The yarns, fabrics, and other fibrous blends are also more soft, supple, breathable and moisture absorbent and are therefore more comfortable to wear, compared to conventional fire retardant fabrics. The inventive yarns may be woven, knitted or otherwise assembled into a desired fabric or other article of manufacture.

EP1847638A2 - FIRE RETARDANT AND HEAT RESISTANT YARNS AND FABRICS TREATED FOR INCREASED STRENGTH AND LIQUID SHEDDING

CHAPMAN THERMAL PRODUCTS, INC.

Published 2007-10-24

Fire retardant and heat resistant yarns and fabrics include an inner core comprised of oxidized polyacrylonitrile encapsulated by an outer shell comprised of a liquid-resistant and strengthening polymer material. The liquid-resistant and strengthening polymer material includes one or more types of cured silicone polymer resin. A fluorochemical may be at least partially impregnated into the inner core prior to applying the liquid-resistant and strengthening polymer material in order to further enhance the liquid shedding properties of the yarns or fabric. Because the silicone polymer resin only encapsulates the yarn, but does not form a continuous coating over the whole fabric, the treated fabric is still able to breath through pores and spaces between individual yarn strands that make up the fabric. The liquid-resistant and strengthening polymer material increases the strength, abrasion resistance, durability and liquid and gel shedding capability of the fire retardant heat resistant yarn or fabric.

EP1458910B1 - COMPOSITE YARN, METHOD FOR OBTAINING SAME AND RESULTING TEXTILE STRUCTURE

CHAVANOZ INDUSTRIE

Published 2007-08-08

The invention concerns a composite yarn consisting of a continuous yarn, obtained by spinning fibers made of organic or inorganic material or natural fibers, and a polymer material. The invention is characterized in that the consecutive fibers of said yarn are uniformly distributed in said polymer material such that each of said fibers is coated by said polymer material. The invention also concerns a method for making such a composite yarn and a textile structure obtainable from at least a composite yarn of the invention.

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EP1880641A1 - INSECT-EXPELLING YARN NET AND METHOD FOR MANUFACTURING THE NET

CHEN-CHANG TECHNOLOGY CO., LTD.

Published 2008-01-23

An insect-expelling yarn net and a method for manufacturing the net are provided. The insect-expelling yarn net includes a yarn net and an insect-expelling substance. The insect-expelling substance is attached to the yarn net. The method includes steps of: providing a yarn net; providing a solution of an insect-expelling substance; placing the yarn net in the solution; and volatilizing a solvent of the solution so that the insect-expelling substance can be attached to the yarn net. Another method for manufacturing an insect-expelling yarn net is provided. The method includes steps of: providing yarns; providing a solution of an insect-expelling substance; placing the yarns in the solution; volatilizing a solvent of the solution so that the insect-expelling substance can be attached to the yarns; and weaving the yarns into a yarn net.

US20080268734A1 - ELASTIC COMPOSITE YARNS AND WOVEN FABRICS MADE THEREFROM, AND METHODS AND APPARATUS FOR MAKING THE SAME

CONE MILLS LLC

Published 2008-10-30

Composite yarns have a filamentary core provided with at least one elastic performance filament and at least one inelastic control filament. A fibrous sheath, preferably formed from spun staple fibers, surrounds the filamentary core, preferably substantially along the entire length thereof. The at least one elastic performance filament most preferably includes a spandex and/or a lastol filament. The at least one inelastic control filament is most preferably formed of a textured polymer or copolymer of a polyamide, a polyester, a polyolefin and mixtures thereof. Preferably, the fibrous sheath is formed of synthetic and/or natural staple fibers, most preferably staple cotton fibers. The elastic composite fibers find particular utility as a component part of a woven textile fabric, especially as a stretch denim fabric, which exhibits advantageous elastic recovery of at least about 95.0% (ASTM D3107).

EP1820889A2 - YARNS USEFUL FOR CONSTRUCTING GRAFT MATERIALS

CORDIS CORPORATION

Published 2007-08-22

The present invention discloses a composite yarn comprising at least one wear-resistant polymeric fiber and at least one flexible polymeric fiber. The present invention also discloses a co-extruded filament comprising a polymeric inner core and a polymeric outer sheath. The polymeric inner core comprises a flexible polymeric material and the polymeric outer sheath comprises a wear-resistant polymeric material. The composite yarn and the co-extruded filament synergistically combine durability and flexibility, and thereby are particularly useful for the construction of graft materials. The present invention further discloses a reinforced fiber graft comprising wear-resistant beads and weaves of flexible polymeric fibers. In another aspect, the present invention discloses a process for assembling a graft device without suture knots by using the inventive co-extruded filament.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

WO2007083338A2 - DEVICE AND METHOD FOR STRETCHING A YARN, AND PACKAGE OF YARN THUS OBTAINED

CROTTI, MARIELLA / VEZIL, ALFIO

Published 2007-07-26

The device relates to a system for unwinding a package of yarn (R1) to be treated; a treatment path of the yarn; a system for winding the treated yarn onto a package (R2); along said path, a section for cold stretching of the yarn and, downstream of the section for cold stretching, a section for shrinkage comprising an oven to heat the yarn, through which the path of the yarn passes.

US7069714B2 - METAL COVERED COMPOSITE YARN, PARTICULARLY FOR ORNAMENTAL PURPOSES

De Boni, Daniele (Inventors)

Published 2006-07-04

A metal covered composite yarn, particularly designed for ornamental purposes, comprises a textile non-metal core formed by a plurality of substantially parallel ultra-thin filaments, a metal cover formed by a relatively thin metal foil ribbon which is spirally wound around the core. The filaments have a substantially lapped or mirror surface finish to minimize resistance to sliding between adjacent filaments and provide a considerable core compliance, and a high yarn softness and flexibility.

EP1812633A1 - INTERMINGLED YARN AND METHOD FOR THE PRODUCTION THEREOF

DIOLEN INDUSTRIAL FIBERS B.V.

Published 2007-08-01

The invention relates to an intermingled unsized synthetic filament yarn for producing technical fabrics with a total titer ranging from 100 to 1500 dtex, and to a method for the production thereof. The inventive yarn is characterized in that it is practically free of tangle knots and in that it contains 0.1 to 0.5% by weight of another component containing a polyester wax.

EP1727927B1 - METHOD FOR COATING A YARN

DIOLEN INDUSTRIAL FIBRES B.V.

Published 2008-06-18

The invention relates to a method for coating a yarn, which comprises the following steps: the yarn is contacted with a dispersion consisting of the coating agent dispersed in a dispersant or with the coating agent in melted form, optionally excess dispersion or melt is removed from the yarn, and the coating is formed on the yarn. When a dispersion is used, the coating is formed by at least partially removing the dispersant by means of heat and the yarn so coated is cooled and reeled up. The inventive method is characterized in that the coated yarn is additionally cooled before being reeled up.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US20080171167A1 - CONE DYED YARNS OF OLEFIN BLOCK COMPOSITIONS

DOW GLOBAL TECHNOLOGIES INC.

Published 2008-07-17

Improved cone dyed yarns have now been discovered which have a balanced combination of desirable properties including less broken fibers and substantially uniform color. These cone dyed yarns comprise one or more elastic fibers and hard fibers, wherein the elastic fibers comprise the reaction product of at least one ethylene olefin block polymer and at least one crosslinking agent.

EP1862572A1 - CUT RESISTANT YARN

DSM IP ASSETS B.V.

Published 2007-12-05

Cut resistant yarn containing at least one single yarn, the single yarn containing high performance staple fibers, characterized in that the single yarn containing the high performance staple fibers has a density of

less than: $C \times \sum_{x=1}^n \varphi_x \cdot \delta_x$ wherein φ_x is the volume fraction of the x^{th} staple fiber in the single yarn, δ_x is

the density of the x^{th} staple fiber in the single yarn and $C = 0.85$. The yarn is suited for the production of protective garment, like gloves etc.

US7155893B2 - METHOD OF PRODUCING HEAT-RESISTANT CRIMPED YARN

DU PONT TORAY CO., LTD. / TOKAI SENKO K.K.

Published 2007-01-02

The present invention relates to a method for producing a heat-resistant crimped yarn comprising: twisting yarn of a heat-resistant high functional fiber; twist-setting this twisted yarn by heat treatment; and untwisting this twist-set yarn, wherein a snarl value of the twist-set yarn is not more than 6.5.

WO2008045492A2 - CUT-RESISTANT YARNS AND METHOD OF MANUFACTURE

E. I. DU PONT DE NEMOURS AND COMPANY / REBOUILLAT, SERGE / MOORE, STEPHEN, DONALD / STEFFENINO, BENOIT

Published 2008-04-17

The invention provides yarns made of filaments of different average diameters, having excellent cut-resistance.

WO2008082495B1 - POLYESTER NANOCOMPOSITE FILAMENTS AND YARN

E. I. DU PONT DE NEMOURS AND COMPANY / SEVENICH, GREGORY, JAMES / WILLIAMSON, DAVID, T.

Published 2008-08-28

Mechanical properties of monofilament polyester fibers and multifilament polyester yarns prepared therefrom are improved by incorporating into the polymer from which the monofilament fibers are formed an effective amount of exfoliated sepiolite-type clay.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1192302B1 - FINE DENIER YARN FROM POLY(TRIMETHYLENE TEREPHTHALATE)

E.I. DU PONT DE NEMOURS AND COMPANY

Published 2006-07-26

The invention is directed to fine denier poly(trimethylene terephthalate) feed yarns and drawn yarns and their manufacture. The yarns are drawn such that the actual draw ratio is within 10 percent of the predicted draw ratio determined according to: $[(\text{elongation to break of the feed yarn})+115]/[(\text{elongation to break of the drawn yarn})+115]$.

EP1718791B1 - SPUN YARN, AND METHOD AND APPARATUS FOR THE MANUFACTURE THEREOF

E.I. DU PONT DE NEMOURS AND COMPANY

Published 2008-08-27

A yarn comprising a plurality of first and second segments, a method for spinning such a yarn comprising passing a sliver through a torque jet that imparts rotation to the fibers of the slivers, and forms a partially consolidated yarn, and passing the partially consolidated yarn through an interlace jet to form a consolidated yarn an a apparatus for carrying out the method.

WO2006078974A1 - STAPLE YARN MANUFACTURING PROCESS

E.I. DUPONT DE NEMOURS AND COMPANY

Published 2006-07-27

The present invention is a staple-fiber yarn, an apparatus for producing the yarn, and a process for stretch breaking filament yarns to produce the staple yarn. The process enables the production of a plurality of products of lot size smaller than a large denier tow product. The process includes a draw zone, a tension control zone, a stretch-break zone and a consolidation zone to form a yarn of staple fibers.

EP1621649B1 - APPARATUS AND METHOD FOR TREATING SYNTHETIC YARNS

FARE' S.P.A.

Published 2008-09-10

The present invention relates to equipment/apparatus, and the relative method/process, for the treatment of synthetic filaments, in particular for drawing said filaments, comprising at least two nozzles each provided with a main passage, through which said yarns pass, having a section variable between an inlet portion and an outlet portion and into which at least one supply channel opens to supply a fluid according to a preferential direction. Advantageously, the nozzles are provided in line and the sections of the main passage of the second nozzle have an area at least 3% larger than the corresponding sections of the main passage of the first nozzle.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US20080040906A1 - ADHESIVE CORE CHENILLE YARNS AND FABRICS AND MATERIALS FORMED THEREFROM

FIBER INNOVATION TECHNOLOGY, INC.

Published 2008-02-21

The present invention is directed to chenille yarns, fabrics prepared therefrom, and items formed therewith. The chenille yarns comprise an adhesive component that is incorporated into the yarn in such a way that the yarns, and the fabrics made therefrom, exhibit excellent physical characteristics, particularly abrasion resistance.

EP1964952A1 - YARN FOR TECHNICAL FABRICS AND METHOD FOR MANUFACTURING THE SAME

FILTES INTERNATIONAL S.R.L.

Published 2008-09-03

The present invention relates to a yarn comprising an inner glass filament covered by a first thread wound in a first winding direction, on which a second thread is wound, which is wound in an opposite direction to the first thread. The wound yarn is twisted on a third thread and/or a fourth thread, which are twisted in an opposite twisting direction to the second thread. The yarn is suitable for making technical fabrics having high cut strength and abrasion resistance.

WO2008092220A1 - PROCESS FOR PRODUCING COMPOUND YARNS AND COMPOUND YARNS OBTAINED THEREFROM

FIOS TÊXTEIS H. MARIN LTDA. / MARIN, ANTONIO HERMÍNIO

Published 2008-08-07

Comprising a process for producing compound yarns by means of interlacing threaded yarns and continuous filaments based upon injection of compressed air whereby improving the production of a compound yarn adding quantitative and production improvements to the yarn further to satisfying the extensive technical needs of the textile market.

EP1927683A2 - POLYESTER STAPLE FIBER (PSF)/FILAMENT YARN (POY AND PFY) FOR TEXTILE APPLICATIONS

FUTURA POLYESTERS LIMITED

Published 2008-06-04

The invention relates to a blended two component polymer system comprising Polytrimethylene Terephthalate (PTT) and a CoPolyester of Polyethylene Terephthalate (CoPET) with a PTT:CoPET composition ranging between 95: 5 and 5:95. The blended composition may be melt spun with circular and tetra lobal cross section spinnerettes for staple fibre and partially oriented yarn (POY) and the properties are compared with 100% PET polymer as well as 100% PTT polymer. The tetra channel fibre properties are superior when compared to the fibres produced from homopolymers as well as the bicomponent fibres particularly their moisture wicking characteristics and increased dyeability.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US7398640B2 - UNTWISTED WRAPPED SINGLES YARNS AND CARPETS MANUFACTURED THEREFROM

HONEYWELL INTERNATIONAL INC.

Published 2008-07-15

The yarns of the invention include untwisted wrapped singles yarns having a core strand and a wrapper yarn. The wrapper yarn is a base synthetic fiber and a heat-activated binder fiber with a melting point substantially below that of the base synthetic fiber. The Saxony carpets of the invention are made from untwisted singles yarn tufts and are possessed of surface appearance, individual tip retention, pile density, resilient hand and wear resistance comparable or superior to conventional Saxony carpets made from multiple plied twist set yarns.

WO2007015617A1 - METHOD FOR PREPARING POLYESTER MULTIFILAMENT YARN FOR REINFORCEMENT OF RUBBER AND POLYESTER MULTIFILAMENT YARN PREPARED BY THE SAME METHOD

HYOSUNG CORPORATION

Published 2007-02-08

Disclosed is a method of producing a polyester multifilament yarn for reinforcing rubber, and a polyester multifilament yarn produced using the method. The method includes a) adding a polymerization catalyst containing 150 to 250 ppm of an antimony compound based on an antimony metal to a terephthalic acid (TPA) and ethylene glycol (EG) to perform polymerization, b) solid state polymerizing a polymer obtained in step (a), c) melt spinning a solid state polymer obtained in step (b), d) winding melt spun filaments at a speed of 1500 m/min or more to produce an undrawn yarn having a density of 1.338 g/cm or more, and e) stretching the undrawn yarn obtained in step (d) to produce a polyester multifilament yarn that has intrinsic viscosity of 0.83 or more and tenacity of 8.3 g/d or more and includes 20 microequivalents/g or less of a carboxyl end group and 1.2 wt% or less of diethylene glycol. The polyester multifilament yarn is useful as a rubber reinforcing material to produce a treated cord, such as a tire cord.

US7323244B2 - LOW AND WEAKLY-INTERLACED POLYESTER MULTIFILAMENT YARN AND METHOD OF PRODUCING THE SAME

HYOSUNG CORPORATION

Published 2008-01-29

Disclosed is a low and weakly-interlaced industrial polyester multifilament yarn, which has excellent flatness and flat uniformity, and in which the number of monofilament layers is properly controlled according to a fineness of the low and weakly-interlaced polyester multifilament yarn and monofilaments are interlaced, thereby reducing a surface brightness gradient of a coated fabrics, produced using the low and weakly-interlaced polyester multifilament yarn, when light is irradiated to the coated fabrics. Additionally, the present invention provides a method of producing the low and weakly-interlaced polyester multifilament yarn, in which air pressure of an air interlacing device, a yarn path, tension of the yarn, an helix angle of the yarn wound around a cheese, intervals between first guides, located before and after the air interlacing device, and second guides, located in the air interlacing device, and a position of a wave plate are properly controlled.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1812628A1 - MELT-SPUN MULTIFILAMENT POLYOLEFIN YARN FORMATION PROCESSES AND YARNS FORMED THEREFROM

INTEGRITY, LLC

Published 2007-08-01

A process of making polyolefin multifilament yarn including feeding a polyolefin and a nucleating agent to the inlet of an extruder having a mixing manifold, extruding filaments through a spinneret into a cooling bath, collecting the filaments with take-up rolls to form a fiber bundle, passing the fiber bundle through nip rolls to a finish applicator, passing the fiber bundle through an oven and drawing with draw rolls to form a multifilament yarn and winding the multifilament yarn onto a take-up roll.

US7320766B2 - OVERDYEABLE PIGMENTED POLYMERIC FIBER AND YARNS AND ARTICLES MADE THEREFROM

INVISTA NORTH AMERICA S.A.R.L.

Published 2008-01-22

Dyed yarns typically have inferior color fastness compared with pigmented yarns. However, dyeing offers a virtually infinite selection of colors, flexibility and more uniformity than constructions of pigmented yarns in residential carpet and other yarn applications, such as apparel. It has been found that relatively small amounts of pigment (10 to 1000 ppm) incorporated into polymeric fibers, and particularly nylon fibers used in carpets, creates lightly pigmented yarns which, when overdyed, are highly uniform and have a higher degree of apparent dye light fastness compared to normal dyed yarns. This effect is observable for both anionic and cationic polyamide polymers, and dyeing of these slightly pigmented yarns can be conducted to produce yarns of almost any color of greater depth than the base yarn.

EP1992722A2 - POLYAMIDE COMPOSITION COMPRISING OPTICAL BRIGHTENER, YARNS MADE THEREFROM AND PROCESS FOR HEAT SETTING SUCH YARNS

INVISTA TECHNOLOGIES S.A.R.L.

Published 2008-11-19

A polyamide composition, which includes an optical brightener together with either an antimicrobial agent or anti-oxidant stabilizer, or both, is suitable for making yarns, and fabrics, garments, molded articles or other articles such as carpets from these yarns. Processes for incorporating optical brighteners into polyamide compositions, polymers and yarns to make fabrics and molded articles that exhibit superior whiteness after heat-setting are also disclosed.

EP1951937A1 - IMPROVED POLYAMIDE YARN SPINNING PROCESS AND MODIFIED YARN

INVISTA TECHNOLOGIES S.A.R.L.

Published 2008-08-06

Disclosed is a process for spinning a polyamide filament, and providing yarns, comprising the steps of : providing- polyamide polymer to a melt extruder; providing a triamino compound capable of branching the polyamide polymer; charging said triamino compound to said melt extruder at an injection point selected to provide sufficient contact time for said triamino compound and said polyamide polymer to form a melt polymer,- melting said polyamide polymer; and extruding the melt polymer to form a branched polyamide polymer filament. Polyamide yarns formed from modified nylon 66 polymer have a formic acid relative viscosity (RV) of 40 to 55, an elongation at break of 60% to 100%, being a triamino compound content of 0.01 to 0.10 weight per cent, being provided by the process additionally comprising a draw ratio of less than about 2.0.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1549789B1 - STRETCH POLYESTER AND ACRYLIC SPUN YARN

INVISTA TECHNOLOGIES S.A.R.L.

Published 2006-12-06

The invention provides a spun yarn comprising polyester bicomponent staple fiber and acrylic staple fiber. The invention further provides a method for making spun yarns and fabrics. The spun yarn of the invention comprises at least 30 weight percent acrylic staple fiber and from 17 to 45 weight percent polyester bicomponent staple fiber comprising poly(ethylene terephthalate) and poly(trimethylene terephthalate), based on the total weight of the yarn.

EP1611273B1 - AIR-JET METHOD FOR PRODUCING COMPOSITE ELASTIC YARNS

INVISTA TECHNOLOGIES S.A.R.L.

Published 2008-05-28

A continuous method for producing composite elastic yarns at speeds up to 700 m/min by (a) stretching (drafting) an elastomeric yarn (e.g., spandex) by 2.0x (100%) to 10.5x (950%) while heating (max. heating temperature 220°C) in a single or double stage draft, (b) air-jet entangling with a relatively inelastic yarn component to create a composite elastic yarn, and then (c) in-line heat-treating (max. heating temperature 240°C) the composite elastic yarn. The initial draft stage(s) may also be carried out at ambient temperature. The resulting composite elastic yarn has improved stitch clarity, particularly suited for hosiery, and its properties can be tailored to provide fabric properties for knit and woven fabrics hitherto not possible with standard spandex yarns.

EP1463852B1 - YARN MAKING PROCESS AND APPARATUS

INVISTA TECHNOLOGIES S.A.R.L.

Published 2008-03-05

The present invention relates to the combination of a tension gate and an air shield in the relax zone of a fiber production process. The combination provides a synergistic effect over an air shield alone, or a tension gate alone, or the added effect of both a tension gate and an air shield. The air shield is a plate like structure with or without perforations. The air shield plates are placed in close proximity to a pair of rolls following the tension gate. The plates are positioned inside of the threadline between the pair of rolls. The tension gate can be one or more air drag devices, one or more liquid drag devices, or one or more solid surface contact devices, or a combination of any of the above. The apparatus and the process for using the apparatus is disclosed and claimed.

EP1733079A1 - LOW WICK CONTINUOUS FILAMENT POLYESTER YARN

INVISTA TECHNOLOGIES S.A.R.L.

Published 2006-12-20

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.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1373608B1 - MELT SPUN YARNS HAVING HIGH LUSTRE

INVISTA TECHNOLOGIES S.A.R.L.

Published 2006-12-27

The invention provides a profiled polyamide yarn having a yarn weight of from 5 to 300 dtex a filament weight of from 0.5-7 dtex and a non-circular profiled filament cross-section, wherein the polyamide comprises from 0.01 to 3% by weight of a non-white pigment melt dispersed therein. The yarns have a high, metallic lustre due to the combined effect of profiling and the non-white pigment. The invention also provides textile fabrics comprising the yarns, and garments comprising the said fabrics. The invention also provides methods of making the inventive yarns by spinning a polyamide melt having the non-white pigment dispersed therein.

EP1456442B1 - STRETCH POLYESTER/COTTON SPUN YARN

INVISTA TECHNOLOGIES S.A.R.L.

Published 2008-06-18

The invention provides a bicomponent polyester staple fiber and a spun yarn comprising cotton and a bicomponent polyester staple. The fiber of the invention exhibits unexpectedly good crimp and cardability properties, and the yarn has unusually high stretch characteristics and excellent uniformity.

EP1945839A1 - SCALLOPED OVAL BICOMPONENT FIBERS WITH GOOD WICKING, AND HIGH UNIFORMITY SPUN YARNS COMPRISING SUCH FIBERS

INVISTA TECHNOLOGIES S.A.R.L.

Published 2008-07-23

The invention provides a polyester bicomponent staple fiber comprising poly(trimethylene terephthalate) and at least one polymer selected from the group consisting of poly(ethylene terephthalate), poly(trimethylene terephthalate), and poly(tetramethylene terephthalate) or a combination of such members, said bicomponent staple fiber having: a) a scalloped oval cross-section shape having an aspect ratio a:b of about 2:1 to about 5:1 wherein 'a' is a fiber cross-section major axis length and 'b' is a fiber cross-section minor axis length; b) a polymer interface substantially perpendicular to the major axis; c) a cross-section configuration selected from the group consisting of side-by-side and eccentric sheath-core; d) a plurality of longitudinal grooves; and e) a groove ratio of about 1.05:1 to about 1.9:1. Additionally, the invention provides a spun yarn comprising cotton and the polyester bicomponent staple fiber of the invention, as well as fabrics and garments comprising the spun yarn of the invention.

EP1540052B1 - POLYAMIDE YARN PROCESS AND POLYAMIDE YARN

INVISTA TECHNOLOGIES S.A.R.L.

Published 2007-08-01

A process for making a synthetic melt spun polyamide filament in a solid phase polycondensation apparatus is disclosed. The flow rate of the purge (make-up) gas to the apparatus is increased, and the overall pressure in the apparatus is decreased, as compared to solid phase polycondensation apparatus of the prior art. As a result, the removal of the thermal degradation impurity from the polymer flake contributes to improving the yarn quality and at the same time, extends the spinneret wipe life.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1438450B1 - COMPOSITE YARN

KERMEL

Published 2009-01-07

The invention concerns a bright-coloured composite yarn, obtained from yarns or fibres of at least two types, bright-coloured yarns or fibres and heat-stable and/or blanketing yarns. The yarn and articles obtained from said yarn provide excellent protection against heat and/or flames.

US7147914B2 - FULL DULL POLYAMIDE 6 YARN, AND A PROCESS OF PREPARING FOR THE SAME

KOLON INDUSTRIES, INC

Published 2006-12-12

The present invention relates to a full dull polyamide 6 yarn and a process for preparing the same. The yarn of this invention contains 1.5 to 2.5% by weight of titanium dioxide relative to the weight of the yarn, has 35 to 95 titanium dioxide particles having a major axial length of greater than 5 µm being contained in 50 mg of the yarn, and contains 0.1 to 0.5% by weight of phosphate salt (wetting agent) relative to the weight of titanium dioxide. In the process of this invention, 0.1 to 0.5% by weight of phosphate salt relative to the weight of titanium dioxide is added as a wetting agent, carprolactam is applied along with water upon concentration correction, and naphthalene sulfonate based salt is applied along with titanium dioxide slurry during the process of polyamide 6 polymerization. The present invention improves the full dull effect and drape property of the yarn since it contains a great quantity of titanium dioxide having a proper diameter in the yarn without degrading the yarn physical properties and operationability.

EP1543182B1 - A HIGH STRENGTH LOW SHRINKAGE POLYESTER DRAWN YARN, AND A PROCESS OF PREPARING FOR THE SAME

KOLON INDUSTRIES, INC.

Published 2008-03-12

The present invention discloses a high strength low shrinkage polyester drawn yarn used as industrial yarns and a process for producing the same. The strength low shrinkage polyester drawn yarn has a thermal relaxation stress change ratio of 5 to 100% and a thermal relaxation stress area ratio of 50 to 140% on a thermal relaxation and shrinkage stress curve with a final temperature set to 170% C. The process for producing a high strength low shrinkage polyester drawn yarn by a direct spin draw (DSD) process in which a quenching delay region I is mounted, wherein the high strength low shrinkage polyester drawn yarn is produced in such methods that a spinning oil is attached to the yarn being spun with an oiling apparatus 8 mounted at the position 500 to 1,500mm below from the lower bottom surface of the insulating board 3, the relaxation stress of the yarn is controlled with one or tow tension guides 9 mounted between Godet rollers of a relaxation region III, or both oiling apparatus 8 and tension guides 9 are mounted.

US7124569B2 - TEXTURED YARN WITH DIFFERENT SHRINKAGE AND EXCELLENT SUEDE EFFECT AND METHOD FOR PREPARING THE SAME

KOLON INDUSTRIES, INC.

Published 2006-10-24

The present invention relates to a textured yarn (ATY) with different shrinkage and excellent suede effect, wherein at least one or two kinds of two-component composite yarn (effect) yarn having a monofilament fineness are twined around a thermoplastic multifilament yarn (core yarn), forming loops on the surface of the textured yarn.

WO2006108365A1 - YARN FOR PRODUCTION OF BLUE-JEANED FABRIC WITH THE EFFECT OF GRADUAL ABRASION FROM THE ORIGINAL SHADE INTO ANOTHER

KOPECKY, Ivo (Inventors)

Published 2006-10-19

The solution concerns the yarn for production of blue-jeaned fabric with the elected colour effect. The gist of the solution is that the resulting yarn is constituted by the core spindleless staple yarn and on its surface is rotor-spun staple yarn with the dyeing different from the dyeing of the core spindleless staple yarn which result in the two-color effect for the resulting yarn.

EP1760175B1 - ELECTRICALLY CONDUCTIVE, ELASTICALLY STRETCHABLE HYBRID YARN, METHOD FOR THE MANUFACTURE THEREOF AND TEXTILE PRODUCT WITH A HYBRID YARN OF THIS KIND

KUFNER TEXTILWERKE GMBH

Published 2008-10-08

The invention relates to an electrically conductive, elastically stretchable hybrid yarn, in which an elastically stretchable core filament is surrounded by an electrically conductive fibre sheath. This results in improved technical properties of a hybrid yarn of this kind in conjunction with a simplified manufacturing method.

EP1409244B1 - POLYOLEFIN FILM, TAPE OR YARN

LANKHORST PURE COMPOSITES B.V.

Published 2007-10-10

The invention is directed to monoaxially drawn polyolefin multilayer film, tape or yarn of the AB or ABA type, having a stretch ratio of more than 12, having an E-modulus of at least 10GPa, substantially consisting of a central layer of a polyolefin selected from polyethylene and polypropylene, and one or two other layers of a polyolefin from the same class as the material of the central layer, the DSC melting point of the material of the said other layers being lower than the DSC melting point of the material of the said central layer, wherein the central layer is between 50 and 99 wt. % of the material and the other layers between 1 and 50 wt. %. The present invention further relates to a method of manufacturing such a tape, film or yarn.

WO2007054827A2 - HYGRO MATERIALS FOR USE IN MAKING YARNS AND FABRICS

MANDAWEWALA, RAJESH, R.

Published 2007-05-18

A process is described wherein pile yarn is woven with cotton weft and warp yarns to produce terry fabrics, such as towels. The fabric is then washed in warm water to dissolve the PVA fibers. The amount of fibers dissolved, depends upon the count of the yarn or yarns used. By dissolving the PVA fibers, a hollow air space is produced throughout the pile yarn, corresponding to an increase in the air space in the pile yarn. By increasing the air space in the pile yarn, the resulting towels are softer and bulkier than standard cotton towels. The present invention further relates to pile yarn in terry woven fabric (warp yarn), or weft yarn, in the case of flat fabrics.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1563126A4 - HIGH SPEED SPINNING PROCEDURES FOR THE MANUFACTURE OF HIGH DENIER POLYPROPYLENE FIBERS AND YARNS

COWAN MARTIN E; MORIN BRIAN G (Inventors)

Published 2006-06-07

None

EP1803841A1 - A METHOD FOR PRODUCING A YARN FOR SYNTHETIC GRASS, AND SYNTHETIC GRASS STRUCTURE PRODUCED USING SUCH A YARN

MONDO S.P.A.

Published 2007-07-04

A yarn (20) to produce, in a synthetic grass, filiform formations reproducing natural grass comprising at least one layer of marbled (Moiriert, marbré) aspect given, for example, by the presence of stripes, streaks, bands or granular patterns each with at least marginally different coloration.

EP1839527A1 - YARN FOR CAR WASH BRUSHES

MORE & WASH S.R.L. | RACHELLI ARISTIDE S.R.L.

Published 2007-10-03

A yam for car wash brushes includes an end portion that is tapered down to a thin size smaller than 0,25 mm so that it is soft and does not retain dirt, whereby the cleaning effectiveness of the brushes made with this type of yarn remains unchanged over time and there are no risks of damaging the paint due to dirty ends. Moreover, it is possible to have yarns smaller than 1 mm made of polyester or nylon, that have greater cleaning effectiveness, are more delicate on the paint and last up to 5 times more with respect to conventionally used materials.

WO2006127648A2 - FABRIC WITH PIGMENTED AND DYEABLE YARNS

NEGOLA, Edward, J. (Inventors)

Published 2006-11-30

A novel knitted or woven fabric manufactured using at least one solution dyed or pigmented yarn, preferably polypropylene, which will not accept any type dye normally used to dye knitted or woven fabrics, and at least one yarn that will accept at least one dye normally used to dye knitted or woven fabrics. The fabric with this combination of yarns is dyed, and only the last mentioned yarn accepts the dye. Novel and pleasing effects can be achieved.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

WO2007029752A1 - FABRIC YARN FOR PAPER MAKING AND WOVEN FABRIC FOR PAPER MAKING MANUFACTURED USING THE YARN

NIPPON FELT CO., LTD.

Published 2007-03-15

Disclosed is a fabric yarn for use in paper making, which is excellent in abrasion resistance, stiffness and morphologic stability. Also disclosed is a woven fabric for use in paper making, which is manufactured using the yarn. The fabric yarn comprises a base resin having a viscosity average molecular weight of 500,000 or lower, a high molecular weight resin having a viscosity average molecular weight of 500,000 or lower and contained in the base resin, and an ultra-high molecular weight resin having a viscosity average molecular weight of 1,000,000 or higher and contained in the base resin. In the fabric yarn, the sum of the high molecular weight resin content and the ultra-high molecular weight resin content is 30% by mass or less based on the mass of the finished yarn. The woven fabric comprises the fabric yarn as at least a part thereof. In the fabric yarn, the base resin is preferably at least one reactive resin selected from a polyamide resin and a polyester resin, and the high molecular weight resin and the ultra-high molecular weight resin are preferably modified with an unsaturated carboxylic acid compound.

WO2007029751A1 - FABRIC YARN FOR PAPER MAKING AND WOVEN FABRIC FOR PAPER MAKING MANUFACTURED USING THE YARN

NIPPON FELT CO., LTD.

Published 2007-03-15

Disclosed is a fabric yarn for use in paper making, which is excellent in abrasion resistance, stiffness and morphologic stability. Also disclosed is a woven fabric for use in paper making, which is manufactured using the yarn. The fabric yarn comprises a base resin (e.g., polyamide) having a viscosity average molecular weight of 500,000 or lower and particles of an ultra-high molecular weight resin (e.g., polyethylene) dispersed in the base resin. In the fabric yarn, the ultra-high molecular weight resin has a viscosity average molecular weight of 1,000,000 or higher and is modified with a unsaturated carboxylic acid compound, and the particles are contained in an amount of 20% by mass or less based on 100% by mass of the finished yarn. The woven fabric comprises the fabric yarn as at least a part of the yarns constituting the woven fabric.

US7108818B2 - DIMENSIONALLY STABLE POLYESTER YARN FOR HIGH TENACITY TREATED CORDS

PERFORMANCE FIBERS, INC.

Published 2006-09-19

A spun polyester fiber, a drawn polyester yarn, and methods for making them. Polyethylene terephthalate yarn is prepared by extruding a molten melt-spinnable polyethylene terephthalate having an intrinsic viscosity of at least about 0.8 through a shaped extrusion orifice having a plurality of openings to form a molten spun yarn; solidifying gradually said molten spun yarn by passing said molten spun yarn through a solidification zone which comprises a retarded cooling zone and a cooling zone adjacent said retarded cooling zone where, in said cooling zone, said yarn is rapidly cooled and solidified in a gaseous atmosphere; withdrawing at sufficient speed said solidified yarn from said solidification zone to form a crystalline partially oriented yarn; and hot drawing said crystalline partially oriented yarn at a total draw ratio between about 1.5/1 and about 2.5/1 to produce a drawn yarn having an effective crosslink density (N) between about 10×10^{21} and about 20×10^{21} crosslinks per cubic centimeter. The yarns and fibers so prepared may be used to make treated tire cord having high tenacity in combination with improved dimensional stability.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US7263820B2 - HIGH-DPF YARNS WITH IMPROVED FATIGUE

PERFORMANCE FIBERS, INC.

Published 2007-09-04

A product includes a dimensionally stable polymeric multifilament yarn having a decitex per fiber count DPF of at least 7.5 and a fatigue strength retention FR, wherein preferred yarns are spun and drawn such that FR increases when DPF increases. Particularly preferred yarns are fabricated from poly(ethylene terephthalate) and have a DPF of between 10 and 20.

WO2006116000A2 - ABSORBABLE/BIODEGRADABLE COMPOSITE YARNS AND PROPERTY-MODULATED SURGICAL IMPLANTS THEREFROM

POLY MED, INC.

Published 2006-11-02

The present invention is directed to absorbable/biodegradable composite yarns, each comprising at least two types of fibrous components having distinctly different absorption and strength retention profiles and the use of these composite yarns to construct surgical implants, such as sutures and meshes with integrated physicochemical and biological properties, modulated through varying the individual yarn content and controlling the geometry of these constructs.

WO2007067833A2 - PYRAMIDAL FABRICS HAVING MULTI-LOBE FILAMENT YARNS AND METHOD FOR EROSION CONTROL

PROPEX GEOSOLUTIONS CORPORATION / WEISER, SIDNEY M.

Published 2007-06-14

A pyramidal geotextile fabric comprising two sets of multi-lobe filament yarns interwoven in substantially perpendicular direction to each other, each of the multi-lobe filament yarns having pre-determined, different heat shrinkage characteristics such that, upon heating, the fabric forms a three-dimensional, cusped profile. A method of stabilizing soil and reinforcing vegetation comprises the steps of placing a three-dimensional, high-profile woven fabric into soil, wherein the fabric comprises two sets of multi-lobe filament yarns interwoven in substantially perpendicular direction to each other, each of the multi-lobe filament yarns having pre-determined, different heat shrinkage characteristics such that, upon heating, the fabric forms a three-dimensional, cusped profile; securing the fabric to the ground; and, distributing soil and seed onto the fabric such that the section of ground is quickly revegetated and thereby protected from further erosion.

US20070254153A1 - SELF-CRIMPING FULLY DRAWN HIGH BULKY YARNS AND METHOD OF PRODUCING THEREOF

RELIANCE INDUSTRIES LIMITED

Published 2007-11-01

Self-crimping fully drawn high bulk yarns comprising fibre forming bicomponent filaments comprising two polymers having different crystallizability or differential orientation or combination thereof is disclosed herein. Further the present invention discloses a method for producing the self-crimping fully drawn high bulk yarns by single and two-stage process. The invention also discloses the fabric comprising the self-crimping fully drawn high bulk yarns.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US20060251895A1 - SYNTHETIC, FLAME-RESISTANT YARNS, FIBRES AND FILAMENTS

RHODIA CHIME

Published 2006-11-09

The present invention relates to yarns, fibres or filaments made of thermoplastics and to their manufacture. It relates more particularly to yarns, fibres or filaments exhibiting good fire resistance properties and to processes for the manufacture of these articles. These yarns or fibres made of polymer are obtained by spinning a polymer comprising an additive possessing flame-retardant properties composed of at least particles of a solid substrate on which a flame-retardant compound is adsorbed.

EP1888823A1 - POLYAMIDE YARNS, FILAMENTS AND FIBERS WITH ENHANCED PROPERTIES

RHODIA CHIMIE

Published 2008-02-20

The invention concerns polyamide yarns, fibers and filaments wherein are dispersed nanometric particles, the method for preparing said yarns, fibers and filaments and uses thereof.

EP1364081B1 - METHOD FOR MAKING YARNS, FIBRES AND FILAMENTS

RHODIA POLYAMIDE INTERMEDIATES

Published 2008-05-07

The invention concerns a method for making yarns, fibres and filaments based on polyamide, and yarns, fibres and filaments obtainable by said method. The invention concerns a method for making yarns, fibres and filaments based on a polyamide composition having a molecular structure for enhancing overall productivity of the spinning process, in particular by improving the capacity for drawing the yarns produced thereby providing, for example, for a single identical spinning speed a much higher yarn meterage produced per time unit after drawing. The invention consists in a method for making synthetic yarns, fibres and filaments based on polyamide, comprising the following steps: i) mixing in molten phase the following compounds A and B: compound A: a linear polyamide; compound B selected in the group comprising: star-shaped or H-shaped macromolecular chains including one or several cores and at least three polyamide branches or three polyamide segments bound to said core, obtained from amino acid monomers and/or lactams, and as the case may be linear polyamide macromolecular chains obtained from amino acid monomers and/or lactams the melt index in molten phase of the polyamide or of the polyamide composition measured in accordance with the ISO 1133 standard at 275 °C under 100 g load being higher than 20 g/10 min, and a multifunctional compound comprising at least three identical acid or amine functions; ii) spinning the mixture in molten phase; iii) and optionally drawing said resulting yarns, fibres or filaments.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US7100352B2 - PROTECTIVE COMPOSITE YARN

Robins, Steven D. (Inventor)

Published 2006-09-05

A composite protective yarn is incorporated into an article of apparel. The protective yarn has a core unit including a protective material selected from a group consisting of metallic filament, glass, and high tenacity fiber having a tensile strength of at least 7 grams per denier. A cover is applied to the core unit and is adapted for residing adjacent the skin. The cover includes an optically responsive material adapted for absorbing infrared radiation emitted from the human body at a first wavelength and returning the absorbed radiation to the body at a second longer wavelength. This relaxes capillaries and promotes increased blood flow to body parts covered by the article of apparel.

US20080032131A1 - YARN INTENDED FOR MAKING UP A CUT-RESISTANT AND ABRASION-RESISTANT TEXTILE SURFACE

SA SCHAPPE

Published 2008-02-07

Yarn intended for making up a cut-resistant and abrasion-resistant textile surface, characterized in that it is obtained by spinning high-tenacity polyamide staple fibers, the tenacity of which is greater than 4.5 cN/dtex and the length of the fibers of which is between 40 and 170 mm.

US7065949B2 - CUT-RESISTANT YARN INTENDED ESPECIALLY FOR THE PRODUCTION OF PROTECTIVE GARMENTS

SA SCHAPPE

Published 2006-06-27

The invention concerns a yarn comprising a core obtained by coextrusion of a glass multifilament E, R, C or S or more generally of glass silk or basalt and a polymer sheath of the thermoplastic, thermoset, natural elastomer fluorinated or non fluorinated synthetic elastomer type. The fiberglass part represents not more than 60 wt.% of the sheath/filament complex, and the core is wrapped with synthetic multifilaments (B, C).

EP776393B1 - SIZING COMPOSITION FOR COMPOSITE YARNS AND USE THEREOF

SAINT-GOBAIN VETROTEX FRANCE S.A.

Published 2007-06-20

A sizing composition for composite yarns is disclosed. The composition includes a basic mixture and at least one additive in the form of a fatty acid ester. Said composition enables a good mixture and good protection of the glass filaments and thermoplastic filaments within the composite yarns to be achieved. Composite yarns coated with said composition are also disclosed.

WO2007055432A1 - YARN AND MANUFACTURE METHOD THEREOF

SE DA COOPERATION CO., LTD. | LEE, JONG-HOI

Published 2007-05-18

A yarn containing a functional powder and having a coating layer formed on its outer diameter, and a manufacture method thereof, and woven fabrics and textile articles obtained from the yarn are provided.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1979516A1 - POLYESTER YARN AND PROCESS FOR PRODUCING

SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V.

Published 2008-10-15

A multi-filament poly(trimethylene terephthalate) yarn is provided. The poly(trimethylene terephthalate) yarn has a crystal orientation function of at least 0.6 and an elongation at break of between 65% and 110%. A process for producing the yarn is also provided in which poly(trimethylene terephthalate) is melt-spun into a multi-filament yarn, the yarn is cooled to a yarn temperature of less than 50°C, and the cooled yarn is taken-up at a take-up speed of at least 3500 m/min while maintaining the temperature of the yarn at a yarn temperature of less than 50 °C.

US20070261690A1 - SAWING YARN

SIA ABRASIVES INDUSTRIES AG

Published 2007-11-15

A sawing yarn comprises an abrasive mixture which contains a bonding resin and an abrasive material, as well as a multifilament core made of fibers which are resistant to breaking. The fibers are arranged substantially parallel to one another and are enveloped by the abrasive mixture. The bonding resin contains no polytetrafluoroethylene, and the quantity of abrasive material in the mixture gradually decreases from the surface of the abrasive yarn inward. The yarn is suitable for cutting hard and brittle materials such as single-crystal silicon.

US7178323B2 - MULTI-COMPONENT YARN, METHOD OF MAKING AND METHOD OF USING THE SAME

SUPREME ELASTIC CORPORATION

Published 2007-02-20

A combined yarn is provided containing a metallic strand and a non-metallic strand, wherein the metallic and non-metallic strands are combined by air interlacing the filaments or fibers of the non-metallic strand at intermittent points along their length, so that the metallic strand is encased in the non-metallic strand at least at some of the intermittent points; a composite yarn incorporating the combined yarn as at least one component, and articles and/or garments made from the combined yarn or composite yarn, and methods for the production of the combined and composite yarns.

EP1703004A1 - POLYESTER DIFFERENTIAL SHRINKAGE BLENDED WOVEN YARN AND PROCESS FOR PRODUCING THE SAME

TEIJIN FIBERS LIMITED

Published 2006-09-20

A polyester combined filament yarn composed of a self-extending polyester multifilament yarn A and a heat-shrinkable polyester multifilament yarn B, wherein the polyester multifilament yarn A comprises a core portion and a plurality of fin portions protruding in a radial fashion from the core portion along the lengthwise direction of the core portion, and the following conditions (a) to (c) are simultaneously satisfied. (where SA represents the cross-sectional area of the core portion, DA represents the diameter of the core portion when the cross-section is a circle and the circumscribed circle diameter when it is not a circle, and SB, LB and WB represent the cross-sectional area, maximum length and maximum width, respectively, of the fin portions.)

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1860217A2 - WOVEN OR KNITTED FABRIC CONTAINING TWO DIFFERENT YARNS AND CLOTHING COMPRISING THE SAME

TEIJIN FIBERS LIMITED

Published 2007-11-28

A woven or knitted fabric, formed from two types of yarns different in self-elongating property upon absorbing water and capable of facilitating the air-permeability when wetted with water, is constituted so that a ratio A/B of a mean length A of yarns (1) having a high water-absorbing, self-elongating property to a mean length B of yarns (2) arranged in the same direction as that of the yarn (1) and having a lower water-absorbing, self-elongating property than that of the yarn (1) is adjusted to 0.9 or less.

EP1995358A1 - CONJUGATED FIBER CONTAINING YARN

TEIJIN FIBERS LIMITED

Published 2008-11-26

A conjugate fiber-containing yarn containing side-by-side or eccentric core-in-sheath conjugate fibers each composed of a polyester component and a polyamide component, that can be crimped by heating, and that has properties of increasing its crimp ratio when it absorbs moisture or water and is excellent in windbreaking and warmth-retaining properties, has a wool-like soft and bulky hand, and is capable of forming a fabric in which a see-through property is not increased even when wetted with water.

EP1772543A1 - COMBINED FILAMENT POLYESTER YARN AND WOVEN OR KNIT FABRIC COMPRISING THE SAME

TEIJIN FIBERS LIMITED

Published 2007-04-11

A polyester combined-filament yarn having an excellent stretch property and a bathochromic effect, as well as uniformity of apparent dyed color density, comprises two different multifilament components (A) and (B), wherein the multifilament component (A) comprises polyester filaments composed of polyethylene terephthalate (PET) polymer, a metal-containing phosphorus compound (a) and an alkaline earth metal compound (b), and a conjugate multifilament component (B) comprises side-by-side or eccentric core-sheath conjugate polyester filaments composed of two mutually different polyester resins (at least one of which is polytrimethylene terephthalate resin), the mass ratio (A)/(B) of components (A) and (B) is in the range of 80/20 to 50/50. Woven or knitted fabrics comprising the combined-filament yarn are useful for women's and men's fashion apparel and black formals.

WO2008053977A1 - ANTISTATIC CORE-SHEATH TYPE ULTRAFINE-DENIER FALSE-TWISTED POLYESTER YARN, PROCESS FOR PRODUCTION THEREOF, AND ANTISTATIC WATER-REPELLENT FABRICS COMPRISING THE YARN

TEIJIN FIBERS LIMITED / NAKAJIMA, SUGURU

Published 2008-05-08

Since the false-twisted polyester yarn of the invention contains an antistatic component in a state enveloped in a sheath, the antistatic component is little deformed by false twisting. Therefore, the yarn little fluffs in false twisting and can give a polyester fabric which is improved in antistatic properties while retaining the soft hand, hot insulation, and water- and moisture-absorbing properties inherent in conventional ultrafine-denier false-twisted polyester yarn. The antistatic component of the yarn of the invention is excellent in heat resistance as compared with conventional polyether amide antistatic agents, so that the fabric is excellent in washing durability in a state dyed by the high-pressure method and thus useful as antistatic fabric for student's wear, uniform, dust protective wear, and so on.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

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(methylmethacrylate) 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.

EP1584711A4 - POLYESTER FIBER AND FALSE TWIST YARN COMPRISING THE SAME

KONISHI MASAHIRO; MASUDA TSUYOSHI; OSAKA HIROYUKI; HATTORI KEIJIRO (Inventors)

Published 2006-07-12

None

EP1500730A4 - POLYESTER CONJUGATE FILAMENT THICK-FINE YARN FABRIC AND METHOD FOR PRODUCTION THEREOF

MIYASAKA NOBUYOSHI (Inventor)

Published 2006-10-04

None

EP1595984A4 - DIFFERENTIAL-SHRINKAGE POLYESTER COMBINED FILAMENT YARN

MIZUMURA TOMOO; MIYASAKA NOBUYOSHI; TSUKAMOTO RYOJI; HATTORI KEIJIRO; OSAKA HIROYUKI (Inventors)

Published 2008-10-01

None

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1498520A4 - METHOD FOR PRODUCING POLYESTER EXTRA FINE MULTI-FILAMENT YARN AND POLYESTER EXTRA FINE FALSE TWIST TEXTURED YARN, POLYESTER EXTRA FINE MULTI-FILAMENT YARN, AND POLYESTER EXTRA-FINE FALSE TWIST TEXTURED YARN

KONISHI MASAHIRO; NAGAMUNE SATOSHI; OSAKA HIROYUKI (Inventors)

Published 2007-03-28

None

EP1418260B1 - FILAMENT MACHINE SEWING YARN

TEIJIN LIMITED

Published 2007-02-28

A filament machine sewing thread comprising a spun combined filament yarn obtained by combining polyester filaments A having an intrinsic viscosity $[\eta]_F$ within the range of 0.7 to 1.2 with polyester filaments B having a lower intrinsic viscosity $[\eta]_F$ than that of the polyester filaments A by 0.2 to 0.7 and a higher elongation than that of the polyester filaments A in a spinning stage.

EP1491667B1 - STRETCHABLE CORE-SHEATH TYPE COMPOSITE YARN AND STRETCHABLE WOVEN-KNIT FABRIC

TEIJIN LIMITED

Published 2008-05-21

A core-in-sheath type composite stretch yarn, having excellent stretchability and soft hand and capable of being dyed in dark colors, comprises a core portion constituted from an elastic yarn formed from at least one elastic fiber and having an ultimate elongation of 70% or more and a sheath portion formed from a non-elastic yarn comprising a plurality of non-elastic fibers having an ultimate elongation of 70% or more and surrounding around the core portion, and is useful for producing a woven or knitted stretch fabric having a high stretch percentage and capable of being dyed in dark colors.

EP1574608B1 - POLYESTER FALSE-TWISTED YARN AND METHOD OF MANUFACTURING THE YARN

TEIJIN LIMITED

Published 2008-12-03

A polyester false-twist textured yarn, useful as a yarn for woven or knitted fabrics having excellent water-absorbing and quick drying properties, satisfies all of the requirements (1) to (3) shown below: (1) the cross-sectional profiles of a plurality of individual filaments, from which the false-twist textured multifilament yarn is constituted, each have 3 to 6 concavities, and the average number of the concavities having a ratio (H/W) of a largest depth (H) to a largest width (W) of the individual concavities of 0.3 or more is in the range of from 50 to 80% of the total number of the concavities; (2) the average of the cross-sectional profile flatness factors is in the range of from 1.5 to 3.5; and (3) the standard deviation of the cross-sectional profile flatness factors is in the range of from 0.3 to 1.0.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1361300B1 - METHOD FOR MANUFACTURING POLYESTER MIXED FIBER YARN

TEIJIN LIMITED

Published 2006-07-19

A polyester blended yarn giving a woven or knitted fabric exhibiting a swollen touch and a high grade texture is stably obtained by melt-spinning a polyester composition A comprising a substrate polymer comprising a polyester and 0.5 to 5.0 percent by weight of a polymer P, and the substrate polymer from an identical spinneret or different spinnerets to obtain the filament group A comprising the polyester composition A and the filament group B comprising the substrate polymer, blowing cooling air on the filament groups B and A at a speed of 0.20 to 0.80 m/sec and at a speed of not less than 1.1 times said speed, respectively, to once separately cool and solidify the filament groups B and A, doubling the cooled filament groups, and then taking off the obtained doubled yarn at a speed of not less than 2,500 m/min.

EP1416074B1 - REINFORCING COMPOSITE YARN AND PRODUCTION METHOD THEREFOR

TEIJIN LIMITED

Published 2006-06-28

A composite yarn having a high reinforcing effect on a matrix material to be reinforced is a paralleled yarn of at least one substantially non-twisted multifilament yarn having a tensile strength of 13 cN/dtex or more and an initial modulus of 300 cN/dtex or more with at least one substantially non-twisted staple fiber yarn having a staple fiber fraction having a fiber length of 1.5 times or more the average fiber length of the staple fibers and another fraction having a fiber length of 0.5 time or less the average fiber length, in which a portion of the staple fibers in the staple fiber yarn winds around the periphery of the paralleled composite yarn to thereby bind the multifilament yarn and the staple fiber yarn substantially into a composite yarn without twisting the composite yarn.

EP1319097B1 - THICK AND THIN POLYESTER MULTIFILAMENT YARN

TEIJIN LIMITED

Published 2008-05-28

A thick and thin polyester multifilament yarn having an excellent natural fiber yarn-like hand, a dry touch and spun yarn-like appearance includes a plurality of individual thick and thin polyester multifilaments varying in thickness along the longitudinal direction thereof and exhibits a spectrum having a first peak (Pmax1) of a coefficient of variation in yarn thickness of 4 to 10 cm, a second peak (Pmax2) of the yarn thickness variation coefficient of 50 to 150 cm and a ratio (Pmax1/ Pmax2) of 1.5 to 4.0, measured by the normal mode test method using the Uster evenness tester.

EP1559815B1 - CONDUCTIVE YARN, METHOD OF MANUFACTURE AND USE THEREOF

TEIJIN MONOFILAMENT GERMANY GMBH

Published 2008-06-25

Disclosed is a multi-component electrically conductive yarn which includes a primary component and a secondary component. The primary component comprises at least one elongated filament formed of polymeric material while the secondary component comprises a blend of polymeric material and carbon nanotubes. The secondary component is bonded with the primary component along its length. The carbon nanotubes comprise up to 20% of the secondary component. The conductive yarn comprises no more than 10% carbon nanotubes.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1741813A1 - HIGH-STRENGTH YARN MADE THROUGH STRETCH BREAKING AND PROCESS FOR PRODUCING THE SAME

TEIJIN TECHNO PRODUCTS LIMITED

Published 2007-01-10

A spanized yarn constituted by a high strength short fiber containing at least one polymer selected from the group consisting of poly-p-phenylene terephthalamide, poly-p-phenylene benzoxazole, polyethylene, polyvinyl alcohol and wholly aromatic polyester and having a strength of 14 cN/dtex or more, and the high strength short fiber has an average single yarn length of from 50 to 90 cm and a coefficient of variation (CV) in average single yarn length of 50% or less.

EP1474552B1 - METHOD FOR MAKING A MULTIFILAMENT ARAMID YARN WITH HIGH FATIGUE RESISTANCE

TEIJIN TWARON B.V.

Published 2006-12-13

The invention pertains to a method for obtaining a cord with high fatigue resistance, made of a multifilament aramid yarn obtained by the steps comprising: a) spinning a solution of an aromatic polyamide into a coagulation bath; b) optionally neutralizing and washing the resulting multifilament yarn; c) treating the yarn on-line with a curable epoxy compound, optionally together with or followed by treating the yarn with at least one alkaline curing agent; d) obtaining the yarn having a free epoxide content of not more than 10 mmoles/kg; e) converting the yarn to a cord; g) treating the cord with a coating which is adhesive to rubber and rubber-like materials and different from the curable epoxy compound, characterized in that the cord is subjected to a further process f) comprising the step of treating the cord with a curable epoxy compound between steps e) and g).

EP1371680B1 - STARCH-MODIFIED AQUEOUS ADHESIVE DIP, TREATED YARNS THEREWITH AND RUBBER TIRE CONTAINING SUCH TREATED YARNS

THE GOODYEAR TIRE & RUBBER COMPANY

Published 2006-06-07

The invention relates to the treatment of yarns for use in reinforcement of rubber products. Such treatment comprises application to the yarn of an aqueous emulsion of polyester and/or epoxy adhesive, or an aqueous alkaline dispersion of rubber latex and resorcinol-formaldehyde resin adhesive, wherein said adhesive contains a minor amount of particulate, water insoluble starch composite of starch and water insoluble plasticizer therefore. Such yarns may be in a form of a cord comprised of a plurality of yarns. The invention further relates to such treated yarns. The invention additionally relates to such treated yarns and a composite of rubber and said treated yarns. The invention additionally relates to an article of manufacture such, as for example, a rubber tire, having at least one component comprised of said composite.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US7090701B2 - METHODS OF IMPROVING SHRINK-RESISTANCE OF NATURAL FIBERS, SYNTHETIC FIBERS, OR MIXTURES THEREOF, OR FABRIC OR YARN COMPOSED OF NATURAL FIBERS, SYNTHETIC FIBERS, OR MIXTURES THEREOF

THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF AGRICULTURE

Published 2006-08-15

Methods of improving shrink-resistance of natural fibers (e.g., wool, wool fibers, animal hair, cotton), synthetic fibers (e.g., acetate, nylon, polyester, viscose rayon), or blends thereof (e.g., wool/cotton blends), or fabrics or yarns composed of natural fibers, synthetic fibers, or blends thereof, involving contacting the fibers (or fabric or yarn) with NaOH, H₂O₂, gluconic acid, dicyandiamide, and non-ionic surfactant (e.g., Triton X surfactant such as Triton X-100 and preferably Triton X-114), and optionally subsequently contacting the fibers (or fabric or yarn) with protease and non-ionic surfactant and optionally sodium sulfite and optionally triethanolamine and optionally polyacrylamide polymer. The methods do not utilize dichloroisocyanuric acid, chloroamines, peroxymonosulfuric acid, monoperoxyphthalic acid, permanganate, chlorine gas, sodium hypochlorite, or aminoplast resins.

US7264637B2 - METHOD OF INHIBITING THE BURNING OF NATURAL FIBERS, SYNTHETIC FIBERS, OR MIXTURES THEREOF, OR FABRIC OR YARN COMPOSED OF NATURAL FIBERS, SYNTHETIC FIBERS, OR MIXTURES THEREOF, AND PRODUCTS PRODUCED BY SUCH METHODS

THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY OF AGRICULTURE

Published 2007-09-04

Methods of inhibiting the burning of natural fibers (e.g., wool, wool fibers, animal hair, cotton), synthetic fibers (e.g., acetate, nylon, polyester, viscose rayon), or blends thereof (e.g., wool/cotton blends), or fabrics or yarns composed of natural fibers, synthetic fibers, or blends thereof, involving treating the fibers (or fabrics or yarns) with polyamic acid or at least one polyimidesiloxane (PISi) or mixtures of polyamic acid and at least one polyimidesiloxane. Also products produced by such methods.

US7111445B2 - FIRE-RESISTANT SEWING YARN AND THE PRODUCTS MADE THEREFROM

Threlkeld, James; Kolmes, Nathaniel H. (Inventors)

Published 2006-09-26

A composite heat resistant sewing thread comprising a core form of at least one strand of a yarn having an elongation, at least one bottom cover wrapped around the core in a first direction at a rate sufficient to provide substantially complete coverage of the core, at least one outer cover wrapped around the at least one bottom cover, at least one bonding agent, and a lubricant.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US20080072628A1 - KIND OF YARN OF LEATHER AND ITS PRODUCTION PROCESS

TIANWEI TEXTILE TECHNOLOGY (SHENZHEN) CO., LTD.

Published 2008-03-27

This Invention provides a kind of leather yarn and its process of production, wherein the yarn is made of 1-100% WT of leather fiber, being mechanically opened from leather, and 0-99% WT of textile fiber. Leather fiber and textile fiber are disposed longitudinally, interlaced with each other and twisted together to form leather yarn. Process of making yarn of leather fiber is as follows: tanning animal pelage with conventional tanning process, then sorting, swelling, opening fiber, degumming, decoloring, edulcorating, grading, blending, clearing, carding, drawing, and spinning. This invention can improve availability of animal pelage, broaden application field of animal pelage, and solve problems of low availability of animal pelage and reclamation and recycling of worn-out leather.

US7134266B2 - JACKETED YARN, TEXTILE AND METHOD OF PRODUCING SUCH A YARN

TISSAGE ET ENDUCTION SERGE FERRARI SA

Published 2006-11-14

A sheathed yarn having a natural appearance comprises a core yarn and a sheath which is made from a thermoplastic material. The thermoplastic material of the sheath comprises less than 20 wt. % of staple fibers, especially of natural origin. The sheathed yarn exhibits excellent mechanical properties and usage properties such as fire resistance, weatherability, resistance to sunshine, and an external appearance generating physically pleasant visual, tactile and olfactory sensations.

EP1154055B1 - POLYESTER YARN AND METHOD FOR PRODUCTION THEREOF

TORAY INDUSTRIES, INC.

Published 2008-07-09

The present invention relates to polyester yarn which is characterized in that it is a multifilament yarn substantially comprising polytrimethylene terephthalate, and as well as the strength from the stress-strain curve being at least 3 cN/dtex and the Young's modulus being no more than 25 cN/dtex, the minimum value of the differential Young's modulus at 3-10% extension is no more than 10 cN/dtex and the elastic recovery following 10% elongation is at least 90%. Furthermore, said polyester yarn can be obtained by a method of producing polyester yarn which is characterized in that multifilament yarn obtained by the melt spinning of polymer substantially comprising polytrimethylene terephthalate of intrinsic viscosity $[\eta]$ at least 0.7 is hauled-off at a spinning rate of at least 2000 m/min and, without winding up, subjected to drawing and heat-treatment, after which it is continuously subjected to a relaxation heat treatment at a relaxation factor of 6 to 20% and wound up as a package. Moreover, the present invention also relates to a woven material of outstanding soft-stretchability which is characterized in that the aforesaid polyester yarn is used as the warp yarn and/or the weft yarn in the form of twisted yarn of twist coefficient 10,000 to 20,000. In this way, it is possible to produce yarn stably at a high yarn production rate without package tightening occurring, and, as well as there being little variation in properties in the fibre lengthwise direction, when made into fabric, said fabric stretches at low modulus so there is little sense of tightness, and it is possible to provide polyester yarn and woven materials with a soft handle.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1939336A1 - CRIMPED YARN, METHOD FOR MANUFACTURE THEREOF, AND FIBER STRUCTURE

TORAY INDUSTRIES, INC.

Published 2008-07-02

A crimped yarn characterized in that a synthetic fiber which comprising an aliphatic polyester resin and a thermoplastic polyamide resin and exposed area ratio of the aliphatic polyester resin with respect to fiber surface area is 5% or less and a crimp is imparted to a multifilament comprising said synthetic fiber, and a fiber structure containing said crimped yarn as at least a part thereof. Furthermore, a crimped yarn in which the aliphatic polyester resin and the thermoplastic polyamide resin are constituted by a polymer alloy type synthetic fiber, or a crimped yarn constituted by a sheath/core type composite fiber in which the core component comprises the aliphatic polyester resin or a polymer alloy of the aliphatic polyester resin and the thermoplastic polyamide resin and the sheath component comprises the thermoplastic polyamide resin, and a fiber structure containing said crimped yarn as at least a part thereof.

WO2008007682A1 - FALSE TWIST YARN AND PROCESS FOR PRODUCING THE SAME

TORAY INDUSTRIES, INC. / DATE, HIROAKI / UENO, NOBORU

Published 2008-01-17

A false twist composed of single fibers comprising a polyester ingredient consisting mainly of polytrimethylene terephthalate. The false twist yarn satisfies all of the following requirements: (1) the degree of shrinkage through a 98°C 20-minute wet heat treatment is 5% or lower; (2) the ratio of the degree of shrinkage/expansion through a 90°C 15-minute dry heat treatment (TS) to the degree of shrinkage/expansion through a 90°C 20-minute wet heat treatment (WS), TS/WS, is $0 < TS/WS \leq 1$; and (3) the tensile strength is 2.0 cN/dtex or higher. With this false twist yarn, a pile fabric having a soft texture and low shrinkability can be produced.

US20070243783A1 - CONJUGATED STRETCH YARN, GLOVES AND STRETCH FABRIC WITH OPENWORK PATTERN

TOYO BOSEKI KABUSHIKI KAISHA

Published 2007-10-18

A composite elastic yarn includes a polyolefin-based elastic fiber and a polyolefin-based inelastic fiber. A cross-linked polyolefin-based elastic fiber, for example, is employed as the polyolefin-based elastic fiber, and a high molecular-weight polyethylene fiber having a weight average molecular weight of at least 10×10^5 , for example, is employed as the polyolefin-based inelastic fiber. Such a composite elastic yarn is suitable for use as a glove material. The yarn may be used to produce a stretchable fabric with a watermark-like pattern including a cross-linked polyolefin-based elastic fiber and an inelastic fiber, and having a watermark-like pattern produced by complete or incomplete removal of the inelastic fiber with partial burn-out printing.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

WO2007011961A2 - ENVIRONMENTALLY FRIENDLY YARN AND FABRIC

TWITCHELL CORPORATION

Published 2007-01-25

A monofilament or multifilament, high tenacity, polypropylene, polyethylene, propylene based copolymer, ethylene based copolymer, olefin, or fiberglass core yarn is extruded with a coating comprising a mixture of polypropylene, ethylene octane copolymer to form a monofilament yarn. The coating may also include a flame retardant, a pigment, an ultraviolet inhibitor or a lubricant. This yarn is inherently recyclable, and possesses none of the ecological and health concerns associated with commonly used polyvinyl chloride (PVC) coated yarns. The yarn overcomes the potential health risks, meets flame resistance standards, and ideally replaces PVC products. Bonded, woven fabrics employing the yarn are also recyclable, environmentally friendly, and perform as well as fabrics utilizing a PVC coated yarn. Such fabric makes an ideal interior window shades, wall coverings, and seating material in typical commercial, residential, or automotive interior applications.

EP1844797A1 - YARNS CONTAINING THERMOPLASTIC ELASTOMER COPOLYMER AND POLYOLEFIN FILAMENTS

TYCO HEALTHCARE GROUP LP

Published 2007-10-17

Braids and surgical devices are made from yarns that include at least one filament made from a thermoplastic elastomer copolymer and at least one filament made from a polyolefin material.

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.

EP1928953A2 - COMPOSITION FOR PRODUCING POYESTER AND POLYAMIDE YARNS WITH IMPROVED MOISTURE MANAGEMENT PROPERTIES

UNIVERSAL FIBERS, INC.

Published 2008-06-11

Fibers for use in making textiles and floor coverings are made from a moisture management composition that includes polyesters or polyamides and polyoxyalkyleneamines.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

EP1871822A2 - COMPOSITION FOR PRODUCING FLAME RETARDANT POLYESTER YARNS

UNIVERSAL FIBERS, INC.

Published 2008-01-02

A composition for use in making flame-retardant polyester yarns includes about 93 to 99.5% by weight of polyester, from about 0.25 to 4% by weight chain extender, and about 0.25 to 3% by weight polyoxyalkyleneamine.

WO2006117829A1 - METHOD FOR PROCESSING POLYMERIC YARNS AND TEXTILE MATERIALS FOR MODIFYING THEIR SURFACE RESISTIVITY

UNIVERSITA' DEGLI STUDI DI MILANO BICOCCA / SAATI S.P.A.

Published 2006-11-09

The present invention relates to a method for processing polymeric yarns and textile materials to modify the surface resistivity thereof, said method being characterized in that it comprises a step of performing a plasma treatment directly on said fibers of said polymeric yarns and textile material.

US20070130696A1 - MECHANICALLY AND THERMALLY RESPONSIVE POLYMER YARN FOR INDUSTRIAL FABRIC APPLICATION

VOITH FABRICS PATENT GMBH

Published 2007-06-14

Yarn for an industrial fabric which is subjected to a heat-set temperature during production, the yarn being made from a polymeric material, the polymeric material including a first phase and a second phase. The melting temperature of the second phase is equal to or less than the heat-set temperature and the melting temperature of the first phase is higher than the heat-set temperature.

US20070062173A1 - CUT AND ABRASION RESISTANT YARN AND PROTECTIVE GARMENT MADE THEREFROM

WELLS LAMONT INDUSTRY GROUP

Published 2007-03-22

Provided is a cut and abrasion resistant yarn and safety garment made from such yarn. The yarn includes a cut-resistant core material, covered by a first wrap having at least one strand of a polymeric material wrapped about the core. A second wrap is included and is wrapped about the first wrap in an opposite direction. The second or outer wrap includes at least one strand having a low coefficient of friction. Also provided is a method of making a protective garment from the inventive yarn wherein the protective garment has increased cut and abrasion resistance.

TEXTILE YARNS

Patent ALERT 01/2009 | CENTEXBEL PATENT CELL

US7121077B2 - ANTIMICROBIAL CUT-RESISTANT COMPOSITE YARN AND GARMENTS KNITTED OR WOVEN THEREFROM

WORLD FIBERS, INC.

Published 2006-10-17

An antimicrobial, cut-resistant composite yarn has a core including at least one cut-resistant strand, and a cover including at least one strand wrapped around and enclosing the core. At least one strand in either the core or the cover is treated with and incorporates an antimicrobial compound. In addition, the yarn can include one or more channel fibers to facilitate movement of moisture within the composite yarn so that the moisture contacts the antimicrobial compound, thereby enhancing the efficacy of the antimicrobial compound. The yarn can be used to fabricate cut-resistant garments, such as gloves, worn by meat cutters and others who work with knives, saws and other sharp implements. The antimicrobial effect reduces bacteria, mold and fungi growth on the garments between washings.

WO2008102130A1 - COMPOSITE CUT- RESISTANT YARN AND GARMENTS MADE FROM SUCH YARN

WYKES INTERNATIONAL LIMITED / BLAKE, KIT

Published 2008-08-28

A cut resistant yarn comprising a resilient core retained by a retention wrap, the cut resistant yarn having a tenacity wrap to define a cut resistant combination, the cut resistant combination is associated with a textured wrap at least to one side of the tenacity wrap for tactility.

EP1736577B1 - YARN OF LEATHER COLLAGEN FIBER AND THE PROCESS THEREOF

ZHANG, LIWEN

Published 2008-07-16

A yarn of collagen fiber of animal leather and the manufacturing process thereof, characterized in that the yarn is made of 1-100 % by weight of collagen fiber of animal leather, and 0-99 % by weight of textile fiber. The yarn of collagen fiber is made by the following steps: choosing raw materials, loosing fiber, assorting, blending, carding, drawing, and twisting; if using rawhide, the above process should also add the steps of liming, washing, de-liming, tanning and dehydrating. The raw material for making of yarn can be rawhide of any animal, as well as any leather waste material or worn-out leather. The yarn has excellent properties, including high tensile strength, abrasion resistance, softness, water adsorption, oil adsorption, flame-retardation, and can be woven, knitted and braided. The yarn can be used to weave high quality fabric with high count and high strength for the four seasons, which greatly broadens the application field of animal leather, improves the utilization of the leather, and provides a spinnable fiber for the textile industry. The present invention can be widely used in textile industry.