

PatentAlert

26 October 2010

Innovations in floor covering

JP2010094200 - HEAT STORAGE CARPET

SUMINOE TEXTILE

Published 2010-04-30

Priority date 2008-10-15 (JP)

PROBLEM TO BE SOLVED: To provide an energy saving heat storage carpet sufficiently warm with improved heat insulating properties and heat storage properties, without using energy of an electric heater, etc.

SOLUTION: Pile yarns are planted on a stainless-steel evaporated base fabric. With this structure, the heat radiated from the body of a person when the person is seated or lies on the carpet is taken into the carpet and the escape of the captured heat from the carpet is prevented as much as possible.

JP2009273762 - HEAT INSULATING CARPET

SUMINOE TEXTILE

Published 2009-11-26

Priority date 2008-05-16 (JP)

PROBLEM TO BE SOLVED: To provide an energy-saving heat insulating carpet which is sufficiently warm even without using energy of an electrothermal heater or the like by raising adiabatic property and heat insulating property in a carpet.

SOLUTION: Pile yarn is planted in a base fabric subjected to aluminum evaporation. Heat to be emitted from a human body when a person sits or lies on the carpet is taken into the carpet, and prevented from escaping from the carpet as far as possible.

TW200940779 - COMPOUND BAMBOO CHARCOAL CARPET AND ITS MANUFACTURING METHOD

Published 2009-10-01

Priority date 2008-03-28 (TW)

The present invention provides a compound bamboo charcoal carpet and its manufacturing method, which is to add bamboo charcoal and nano silver into Nylon, Polypropylene (PP), Polyethylene terephthalate (PET) etc. materials further to produce carpet. By the characteristics of bamboo charcoal and nano silver, the carpet can effectively achieve the effects of heat-storage, thermal insulation, deodorization, and disinfection. Moreover, it can increase the service life of carpet.

CN101524239 - ENVIRONMENTAL PROTECTION TYPE NONWOVEN NEEDLE PUNCHED CARPET AND MANUFACTURING METHOD THEREOF

YINGXU WU (*Inventor*)

Published 2009-09-09

Priority date 2008-03-07 (CN)

The invention relates to an environmental protection type nonwoven needle punched carpet and a manufacturing method thereof. The nonwoven needle punched carpet consists of at least two fiber materials with different fusion points. Base cloth is prepared by nonwoven needle punching; and the base cloth is prepared into the carpet through a forming step of preheating compression. Particularly, in the whole production process, besides the fiber materials, no chemical additives are added and no water treatment is required; and therefore the materials of the nonwoven needle punched carpet keep unicity for easy reclamation and regeneration of raw materials. Regarding the raw materials, the material consumption, the finished product, and each link of the production process, the method not only reduces the production cost, improves the production efficiency and realizes higher economic benefits, but also completely reaches the requirements of environmental protection.

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CN101502374 - FLOOR HEATING CARPET

GUOGANG CHEN (CN) (*Inventor*)

Published 2009-08-12

Priority date 2009-03-23 (CN)

The invention provides a geothermal carpet, comprising radiation pipes and a radiation interlayer. The radiation interlayer continuous slots corresponding with the radiation pipes are uniformly set on the radiation interlayer and the radiation pipe is fixed in the radiation interlayer by being embedded into the continuous slots and the diameter of the radiation pipe is 5-20mm, and the distance between the adjacent radiation pipes is 5-30cm and the radiation pipe is formed by bending a direct pipe and a joint is set on the bending angle of the radiation pipe to ensure the tightness of the radiation pipe. The geothermal carpet has features of energy-saving, environmental protection, reduced dry sensation, moderate humidity, increased indoor comfort, simple installation and maintenance. A water inlet and a water outlet are respectively set on the two ends of the radiation pipe and the hot water enters through the water inlet and passes through the radiation pipe and the geothermal effect is achieved by thermal conduction and the cooled water flows out from the water outlet and then heated by a heating device and a circulating device which are set outside and finally the heated water enters into the water inlet, thus the circulation process is realized.

CN101497797 - ENVIRONMENT FRIENDLY FLAME-RETARDANT CARPET LATEX AND PREPARATION TECHNIQUE

ZHEJIANG ARTISITIC CARPETS MFG

Published 2009-08-05

Priority date 2009-02-19 (CN)

The invention relates to environment-friendly fire resistant carpet latex with fire resistant function and a preparation process thereof. The fire resistant carpet latex comprises 26-36 percent of carboxylic styrene butadiene latex by weight, 7-11 percent of calcium carbonate by weight, 5-7 percent of ammonium polyphosphate by weight, 12-18 percent of trihydrate alumina, and 30-40 percent of water. The fire resistant carpet latex has better fire resistant effect, can radically eliminate the secondary pollution generated by burning the carpet when being applied to the carpet, and smoothly satisfies the requirements of the ship environment-friendly fire resistant product in the International Maritime Organization, the green environment-friendly performance test of Green Label Plus of the CRI in America, the requirement more than Cfl level of the public fire resistant product in the national force standard GB20286-2006, and the requirement more than Cfl level of the building fire-fighting product classification of the European standard EN13501-1.

CN201287661U - COMPOSITE NEEDED CARPET CAPABLE OF MOLDING

JIANGSU ZHONGLIAN CARPET CO LT

Published 2009-08-12

Priority date 2008-07-17 (CN)

Disclosed is a composite needed shapeable carpet, the carpet body is formed by combining a needed fabric surface and a composite needed bottom-layer felt through needling in high density, and the composite needed bottom-layer felt is a composite layer which is formed by mixing low-melting-point fibers and common fibers. The low-melting-point fibers replace original chemical rubber latex, after being heated, the low-melting-point fibers melt and have adhesiveness, thereby enabling two types of different fibers to be fixedly adhered, after solidifying, the low-melting-point fibers can shape the composite needed bottom-layer felt, for the surfaces of the low-melting-point fibers are melted in a fiber net to form adhesiveness, fiber layers are enabled to form a weave construction which is reinforced at a certain degree, thereby increasing hardness and breaking strength of finished products, reducing breaking elongation thereof, and enabling the finished products to have a certain stiffness. The floor rug product can replace the product made of fiber and chemical rubber latex, reduces use of the chemical rubber latex, and can reduce toxic substances which are generated during reheating and hot-press shaping and in high-temperature environments.

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CN101476207 - WARP KNITTING TERYLENE GINNING VELVET CARPET AND METHOD OF PROCESSING THE SAME

CHANGSHU JINXIU WARP AND KNITT

Published 2009-07-08

Priority date 2008-12-19 (CN)

The invention provides a warp knitting terylene polar fleece carpet which belongs to the terylene fibre product technique field. The carpet includes a flocked yarn and a bottom yarn, the flocked yarn is made of 500-780dtex DTY terylene continuous yarn with 80-100 pieces per meter network, the bottom yarn is made of 167-333dtex FDY terylene yarn, a flocked surface height of the flocked yarn is 5-12mm, wherein, single yarn denier of the DTY terylene continuous yarn is more than or equal to 3.5dtex. The carpet has advantages that processing technique is shortened, production process is more environmentally friendly and cleaning, and cost is lower; the carpet has high impact resistance, better elasticity and hygroscopic property, abrasive resistance is second only to chinlon, high heat and solarization resisting property, no-mildew, no-moth-eaten, easy to dye or print, portable and easy to clean; the carpet is rich in polar sphere sense, has strong third dimension and flexible pattern, the carpet color is novel and shibui, has better visual effect that is suitable to be placed in high class hotel guest room, white-collar apartment, high class chamber, hotel aisle and household bathroom.

DE102008046667 - GROUND COVER FOR USE AS E.G. CARPET IN PRIVATE LIVING SPACE FOR HEAT INSULATION, HAS LAYER CONTAINING VISCOELASTIC POLYMER FOAM THAT EXHIBITS HYSTERESIS BETWEEN TWENTY AND SEVENTY PERCENTAGE DURING PROVISION OF COMPRESSION HARDNESS

BAYER MATERIALSCIENCE AG

Published 2009-06-18

Priority date 2008-09-10 (DE)

The cover has a layer partially connected with a textile surface unit in a planar manner by an elastomer adhesive, where the layer contains viscoelastic polymer foam. The textile surface unit exhibits an elastic modulus in a specific range. The polymer foam exhibits compression hardness in a specific range during 40 percentage of compression. The polymer foam exhibits a hysteresis between 20 and 70 percentage during the provision of the compression hardness. The polymer foam is selected from a group of polyurethane foam or a cross-linked impact foam of synthetic or natural latex. An independent claim is also included for a method for producing a ground cover.

JP2009072257 - CARPET

TORAY INDUSTRIES

Published 2009-04-09

Priority date 2007-09-19 (JP)

PROBLEM TO BE SOLVED: To provide a carpet which uses a polytrimethylene terephthalate which causes minimal environmental impact, has good elastic recoverability and bulkiness and good uniformity.

SOLUTION: The carpet includes a sheath component made of a polytrimethylene terephthalate whose fraction is 60 to 80% by mass, and a core component made of polyester other than the polytrimethylene terephthalate whose fraction is 20 to 40% by mass, and contains crimped yarns crimped by 5 to 35% containing a core-sheath conjugated fiber whose degree of cross-sectional modification is 3.0 or lower.

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CN101294336 - METHOD FOR PREPARING SISAL HEMP TUFTED CARPET

GUANGXI FUYUAN SISAL CO LTD

Published 2008-10-29

Priority date 2008-06-19 (CN)

The invention relates to a tufting carpet prepared from sisal fiber. The preparation method thereof comprises the following steps: soaking sisal fiber in a water solution containing sodium hydroxide 1 to 10% the weight of sisal fiber and having a temperature of 70 to 100 °C and an amount of 10 times the weight of sisal fiber for 30 to 90 min, washing with clean water to adjust the pH value to 7 to 7.2, spin-drying and oven-drying to reduce the water content to 7 to 12%; oven-drying, and combing while sprinkling a special softening agent with an amount of 10 to 20% the fiber weight; and spinning the sisal fiber to yarn less than 0.9 counts, and processing to tufting carpet by a tufting machine. The novel environment-friendly carpet prepared from pure natural sisal fiber has the advantages of good third dimension, good elasticity and good flexibility, and can be used for jacquard and printing. The carpet is not easy to be bitten by insect, and has no harm to human health.

CN101285245 - LONG WOOLED TIBETAN CARPET OF YAK HAIR OR WHITE PILE

QINGHAI YIYUANXIANG CARPET CO

Published 2008-10-15

Priority date 2008-05-29 (CN)

The invention relates to a Tibetan carpet, in particular to a long yak hair Tibetan carpet made by manually spinning and weaving pure yak hairs. The yarns for weaving warp threads, crossing threads and tufted surfaces of the long yak hair Tibetan carpet are pure yak hair yarns; the weaving density is 40 to 150 rows. The long yak hair Tibetan carpet has the advantages that: as the Tibetan carpet woven by unique yak hair in the Qinghai-Tibet Plateau changes the current situation that the prior Tibetan carpet is only woven by wool yarns, the woven Tibetan carpet keeps the original characteristics of good elasticity and strong warm-preservation; at the same time, as the Tibetan carpet after being woven needs no cropping and only needs to hackle the tufteds in order to extend long hairs, have the effect of simulating fur and make the Tibetan carpet more softer; and as the pure yak hair without dyeing after the cleaning treatment is adopted, the woven Tibetan carpet contains no odour of chemical dye, thereby being more environment-friendly.

CN101311401 - MILK PROTEIN FIBRE RASCHEL CARPET

ZHEJIANG TRUELOVE TEXTILE CO L

Published 2008-11-26

Priority date 2008-05-14 (CN)

The invention relates to a raw material for manufacturing blankets and a finished product thereof, in particular to a Shengma fiber raschel blanket weaved by adopting orlon, Shengma fiber and terylene as raw materials, which belongs to the technical field of blankets. The Shengma fiber raschel blanket manufactured by the raw materials of weaving process of the invention not only has smooth, soft and warm surface with good ventilation property, quick moisture absorption and giving-off performances, antibacterial action, environmental protection, anti-ultraviolet performance, but also has natural antibacterial mildew resistance of linens, better moisture absorption and ventilation property. The raw materials of the Shengma fiber raschel blanket of the invention comprise the components with the weight percentage: 30% to 55% of Shengma fiber, 20% to 35% of orlon and 15% to 30% of terylene.

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CN101125902 - METHOD FOR PREPARING CARBOXYLIC STYRENE BUTADIENE LATEX FOR CARPET BACK COATING

LIYANG JUSHEN CHEMICALS CO LTD

Published 2008-02-20

Priority date 2007-09-05 (CN)

The invention discloses a preparation method of a back lining material used as the back lining of carpets, more particularly relates to a preparation method of the carpets and carboxylic styrene butadiene latex. Butadiene and cinnamene are taken as main monomers, then functional monomers and auxiliary monomers are added, anion emulsifier and non-ionic emulsifier are used complexly, pyrolysis type persulfates of potassium peroxydisulfate water solution or ammonium persulfate water solution, etc. are used as activator, n-dodecylmercaptan is used as molecular weight regulator, a batch feeding or dropwise feeding way is adopted, and vacuum flashing desaeration is used for composing the environment protection carboxylic styrene butadiene latex used as the backing lining of carpets. The carboxylic styrene butadiene latex prepared by the method has good elasticity and enduring performance, high adhesion strength and low volatility harmful substances after being used in woven carpets and tufted carpets, thereby being a green environment protection product upon meeting the requirements of environment protection.

JP2007224493 - TUFT CARPET BASE FABRIC

TOYO BOSEKI

Published 2007-09-06

Priority date 2007-03-29 (JP)

PROBLEM TO BE SOLVED: To provide a filament nonwoven fabric material usable for application having the problem of formaldehyde generation, low in releasing formaldehyde to environmental air and suitable especially for tuft carpet base fabrics for automobiles.

SOLUTION: According to the tuft carpet base fabric the filament nonwoven fabric is composed of synthetic resin filaments and a binder component for fixing the filaments to each other, wherein the fineness of the filament is 1.5-3.5 dtex, the content of the binder resin is 3-30 mass%, the basis weight is 70-200 g/m², and the amount of formaldehyde released is < 0.5 µg.

CN101081555 - CARPET TYPE NANOMETER INTELLIGENT TEMPERATURE-CONTROL HEAT-PROVIDING MATERIAL AND METHOD FOR PREPARING THE SAME

SHANGHAI ZHONGDA TECHNOLOGY DE

Published 2007-12-05

Priority date 2006-05-30 (CN)

The present invention is nanometer intelligent temperature-controlling heating carpet and its making process. The making process includes the following steps: weaving conducting fabric with parallel arranged silver or tin coated copper wires of 0.1-0.75 mm diameter and cotton or blended yarn, coating the conducting fabric with nanometer temperature memory material, adhering two layers of fireproof and heat insulating plastic film separately onto two sides, and adhering one layer of waterproof aluminum or tin foil to one side. The nanometer intelligent temperature-controlling heating carpet can control heating temperature automatically based on the temperature setting for humanized heating, and has the features of high safety, high reliability, etc.

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JP2007314906 - CARPET BACKING

TORAY INDUSTRIES

Published 2007-12-06

Priority date 2006-05-25 (JP)

PROBLEM TO BE SOLVED: To provide a carpet backing having excellent sound absorbing property in addition to recyclability and environmental load reducing property.

SOLUTION: The carpet backing is a needle-punched nonwoven fabric made of staple fibers composed mainly of polylactic acid. The average fineness of the staple fiber is 0.8-8 dtex, the average fiber length is 30-100 mm, and at least one surface of the nonwoven fabric has a film form having fine pores by the mutual fusion of the short fibers.

JP2007303012 - GROUND FABRIC FOR TUFTED CARPET AND TUFTED CARPET USING THE GROUND FABRIC

TORAY INDUSTRIES

Published 2007-11-22

Priority date 2006-05-10 (JP)

PROBLEM TO BE SOLVED: To provide a nonwoven fabric of thermoplastic filament, which has characteristics suitable for use as a ground fabric for a tufted carpet, since the nonwoven fabric is gentle to the environment because it comprises an aliphatic polyester as a principal component.

SOLUTION: The ground fabric for tufted carpet, which is composed of the nonwoven fabric of thermoplastic filament, and includes the aliphatic polyester blended with a polyamide.

CN1 820683 - COMPOSITE FORMING CARPET AND ITS PRODUCING METHOD

SHANGHAI AUTOMOBILE CARPET GEN

Published 2006-08-23

Priority date 2006-03-31 (CN)

The composite formed carpet consists of a facing material layer and a bottom material layer. The facing material layer is made of polymer or mixture of styrene and rubber in the weight ratio of 70/30 to 90/10; and the bottom material layer is blended needle punched non-woven fabric of polyester fiber and low melting point fiber in the weight ratio of 60/40 to 80/20 in the needle punching density of 200-400 stitches/cm². The production process includes smelting and extruding the polymer for the facing material layer to form a membrane covering the surface of the bottom material layer to combine, far infrared heating, press forming inside mold, cooling to settle, punching, and installing corner parts. The product is environment friendly and erasable, and has high impact strength and less deformation. The production process has short procedure, high efficiency and low cost, and is especially suitable for producing small batch and complicated form carpets.

JP2007224704 - INDOOR BUILDING MATERIAL WITH CARPET LAYER AND FUNCTIONAL LAYER

HYOSUNG CORP

Published 2007-09-06

Priority date 2006-02-23 (KR)

PROBLEM TO BE SOLVED: To provide an indoor building material having a carpet layer and a functional layer, specifically the indoor building material having the carpet layer and the further functional layer for maintaining comfortable indoor environment.

SOLUTION: The indoor building material comprises the carpet layer formed of a nylon 6, nylon 66, acrylic, PP, PTT or PET material; a coating layer comprising a composition having predetermined functions; a sound absorbing layer connected to the carpet layer; and an adhesive layer for connecting the carpet layer to the sound absorbing layer. The effective surface area of the carpet layer per 1 m² is 20-150 m².

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JP2007231 501 - SYNTHETIC FIBERS AND CRIMPED YARN INCLUDING THE SAME, AND CARPET

TORAY INDUSTRIES

Published 2007-09-13

Priority date 2006-02-03 (JP)

PROBLEM TO BE SOLVED: To provide fibers which use a polylactic acid resin of non-petroleum-based resin under the consideration of environments and improve abrasion resistance and heat resistance that are the weak points of the polylactic acid, and to provide a crimped yarn which has improved crimp percent, abrasion resistance and permanent set resistance.

SOLUTION: The synthetic fibers includes a polylactic acid resin (A), a methacrylic resin (B), and a polyamide resin (C). The weight ratio of the polylactic acid resin (A), the methacrylic resin (B), and the polyamide resin (C) in the synthetic fibers satisfies the following relations: $((A)+(B))/(C)=5/95$ to $55/45$, and $(A)/(B)=10/90$ to $90/10$.

CN2850454U - CARPET HEATED BY LOW TEMPERATURE RADIATION ELECTROTHERMAL MEMBRANE

TU ZHIRONG

Published 2006-12-27

Priority date 2005-12-02 (CN)

The utility model relates to a carpet heated by low temperature radiation electrothermal films, which is composed of a covering surface carpet and a heating element carpet base. The utility model is characterized in that the covering surface carpet and the heating element carpet base have a split structure; the covering surface carpet is a fibre fabric, the area of the covering surface carpet is matched with the heating element carpet base, and others can be freely selected by a user; the heating element carpet base is formed by the sewing and positioning of a lower temperature radiation electrothermal film, a heat insulation reflecting layer and an upper and a lower protecting reinforced layers. When the utility model is used, the carpet base is horizontally laid on the ground, the surface carpet is covered on the carpet base and a power supply is switched on. The thickness of the lower temperature radiation electrothermal film which is sheathed and is sealed for protection is only 0.5 mm, the lower temperature radiation electrothermal film is heavy press and trample resistant, the phenomena of electric leakage and open flame can be eliminated, far-infrared waves which are close to $9.3 \mu\text{m}$ which is the wave length of the human body radiation peak can be high efficiently radiated after the utility model is energized, the human body can generate heat effect because of the resonant absorption, the utility model has the advantages of good heat-production effect, good safety, high thermal efficiency, reasonable heat distribution, convenient operation, little space occupation, simple manufacture process, low cost and low energy consumption, the heat is upwardly diffused from the ground and the utility model has a good market prospect following the prevalence of the ground heating system.

CN2831969U - A CARPET MADE FROM BAMBOO LEAF

CHEN YUQIANG (CN) (Inventor)

Published 2006-11-01

Priority date 2005-11-02 (CN)

The utility model relates to a household daily use article, particularly a carpet made of bamboo leaves. The carpet made of bamboo leaves is a mat which is formed by knitting a sennit that is knitted into a braid shape and is twisted by bamboo leaves according to a certain regulation. The carpet made of bamboo leaves has the advantage of simple fabrication. The original discarded bamboo leaves are utilized, and environmental resources are utilized fully.

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US20070048491 - WATER RESISTANT CARPET AND METHOD OF MANUFACTURE THE SAME

COURISTAN

Published 2007-03-01

Priority date 2006-08-23 (US)

A carpet and method for making a carpet suitable for both indoor and outdoor use that has a soft and luxurious finish as well as adaptable to stressful outdoor environments. The carpet includes binding chains with both tight warp yarn and slack warp yarn, the slack warp yarn including synthetic fibers and the tight warp yarn including synthetic fibers and natural fibers. Weft is cut from polypropylene film and the pile is formed of polypropylene extruded yarn. The carpet is formed using a rapier loom with a double rapier head system.

GB200722863 - SURFACE COVERINGS AND RELATED METHODS

MILLIKEN & CO

Published 2008-01-02

Priority date 2006-05-24 (WO)

Surface coverings such as floor coverings having a carpet face or show surface in overlying relation to a backing of adjoined particle elements are described. In particular, but not exclusively, the surface coverings are carpet, carpet tile, modular flooring, runners, rugs, roll goods, stabilized broadloom, or the like incorporating a carpet surface or carpet face, having, for example, a pile or non-pile surface. In one embodiment, the carpet has a tuft bind or precoat layer, such as a urethane precoat disposed in overlying relation to a resilient backing formed from a mass, mixture, or slurry, for example, of particles or crumbs, bonded together in adjoined relation by a binder. One or more optional stabilizing and/or backing layers may be included. Methods of making such surface coverings are also provided.

US20060022370 - CARPET YARN DESENSITIZED TO VARIABLE AMBIENT ENVIRONMENTAL CONDITIONS AND METHODS AND SYSTEMS OF MAKING THE SAME

SHAW INDUSTRIES

Published 2006-02-02

Priority date 2005-05-03 (US)

Carpet yarn is provided which is significantly less sensitive to changing ambient environmental conditions. As such, the carpet yarns exhibit substantially uniform wet bulk properties across a wide range of ambient temperature and/or atmospheric moisture conditions so as to reduce significantly (if not eliminate entirely) visible streaks in carpets formed of such yarns. In especially preferred embodiments, the carpet yarns when made are subjected to a substantially higher draw ratio and a substantially higher precrimp temperature prior to being brought into contact with water supplied by means of a non-peristaltic, continuous pressure, steady stream pump. The resulting yarn moisture content is increased to a greater level as compared to conventional carpet yarns not possessing the environmental desensitivity exhibited by the yarns of the present invention.