Fire-resistant glass fiber knit fabric

Patent number: US20210047761

Publication date: 2021-02-18

Applicant(s):   HIGHLAND INDUSTRIES

Inventor: MAYES CHARLES, NEWSOME JAMES

Abstract

Disclosed is a fire resistant knit fabric skeleton having a plurality of knit loops formed of corespun glass fibers, with every other course in the knit further containing a bare glass fiber, such that alternating courses of the knit fabric are either entirely corespun glass fiber or a combination of corespun glass fiber and bare glass fiber. The fabrics a unique mix of favorable properties such as excellent fire resistance and strength, improved coating adhesion, a lower basis weight, and high cross machine direction extensibility.
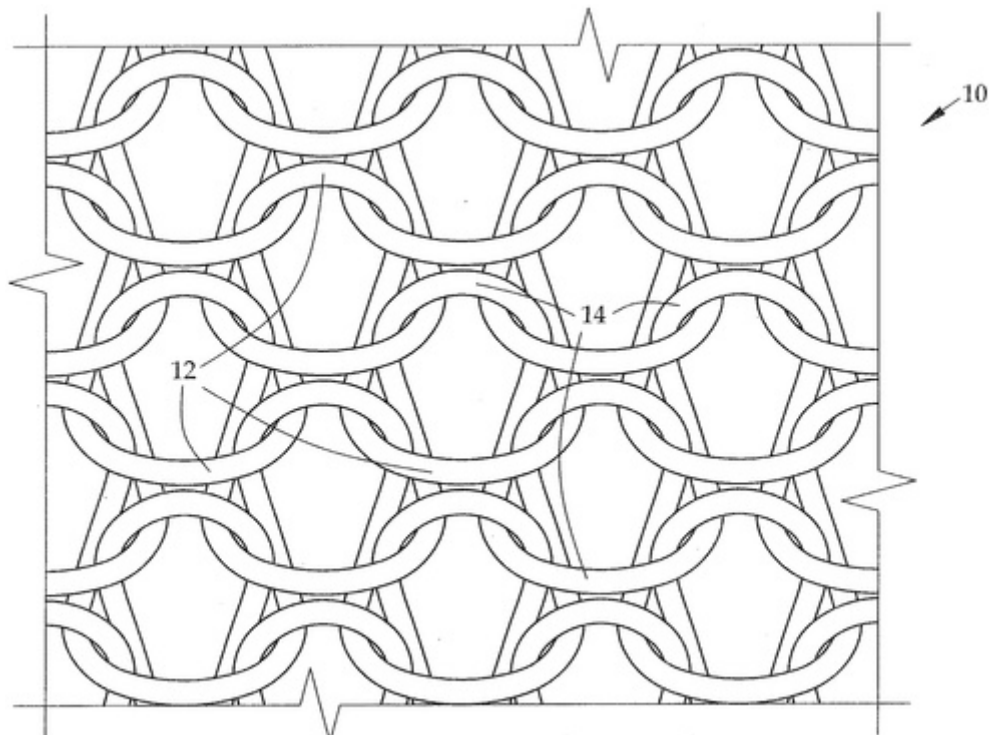
Self-repairing fibre composite material and use thereof

Patent number: DE102019123355

Publication date: 2021-03-04

Applicant(s):   DEUTSCHE INSTITUTE FUER TEXTIL & FASERFORSCHUNG DENKENDORF

Inventor: GÄHR FRANK, LEHR THOMAS

Abstract

The invention relates to a self-repairing fibre-reinforced composite material comprising hollow glass fibres embedded in a matrix. Said material is characterised in that the hollow glass fibres are closed continuously and at the ends thereof, wherein hollow glass fibres (A) contain one or more polyisocyanates and hollow glass fibres (B) contain one or more polyols, and the polyisocyanates and the polyols, when cracks form within the matrix due to rupture of the hollow glass fibres, run out of said fibres and react with one another so as to form polyurethane, and fill the cracks, wherein the polyols, optionally diluted, have a viscosity of at least 0.01 Pas (in accordance with DIN EN ISO 3219) at 20°C. This self-repairing fibre-reinforced composite material can be advantageously used in the field of vehicles, aviation and space travel, shipbuilding, architecture, energy generation by wind power, or sports equipment. The particular advantage is that a very low amount of the self-repairing system can be used. The original mechanical properties are generally completely maintained.

(From WO2021037726 A1)

Diol	Viskosität (20°C) [Pa·s]	Fülldauer [h]
Monoethylenglykol	0,0213	2-3
Diethylenglykol	0,0440	5-7
1,3-Propandiol	0,0418	5-7
1,4-Butandiol	0,0768	7-9
PEG 200	0,0669	6-8
PEG 300	0,0983	7-9
PEG 400	0,1290	10-12
PEG 600	0,1540	12-14
PEG 1000	fest	nicht möglich
PPG 425	0,1080	10-12
PPG 2000	0,4350	nicht möglich
DCPD	0,1640	nicht möglich

Antimicrobial washable pillow

Patent number: EP3677153

Publication date: 2020-07-07

Applicant(s):   TEMPUR WORLD

Inventor: RUSSELL SARAH, WALLACE STEPHEN, SIMONSEN SIMON, TUROSO ANTHONY G

Abstract

A washable pillow comprising of a molded foam core with antimicrobial resistance encased in a washable netting and a sleeve. The pillow may be washed and dried using conventional household methods without significant damage or loss of mechanical properties.
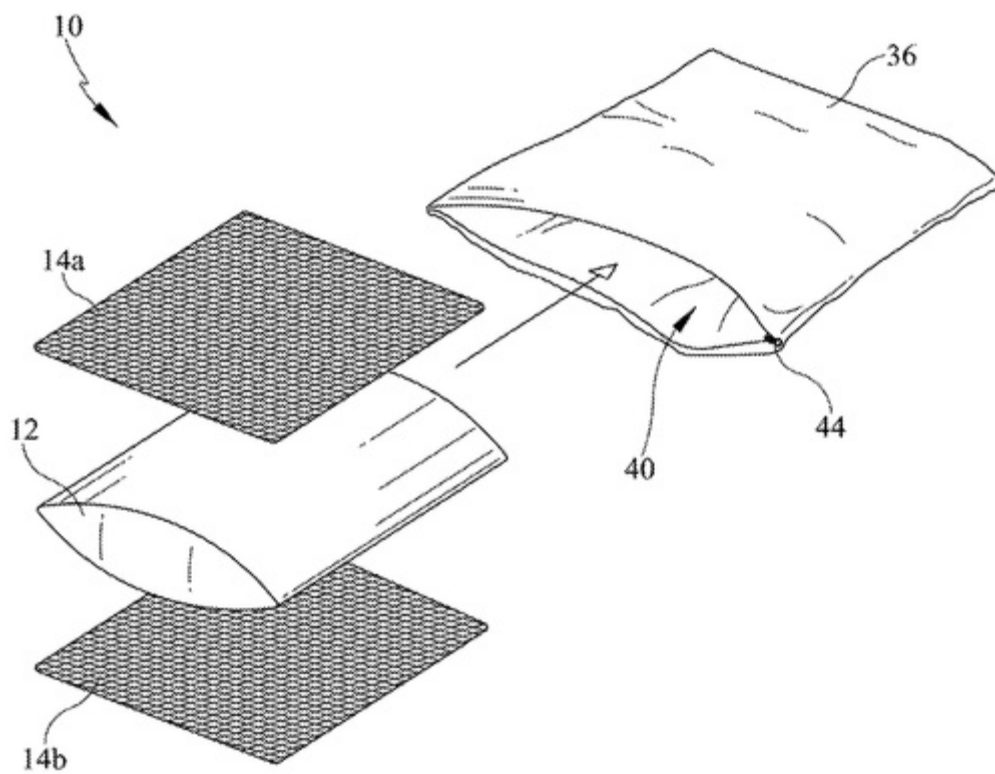
A process for providing a textile with electrical conductivity properties

Patent number: WO2020/064961

Publication date: 2020-04-02

Applicant(s):   SANKO TEKSTIL ISLETMELERI SAN VE TIC

Inventor: COBANOGLU OZGUR, ERYILMAZ JITKA, SENEL ECE, IYIDOGAN DENIZ

KAZANC SEMIH, OZDEN ERDOGAN BARIS

Abstract

The present invention relates to a process for producing an electrically conductive composite textile article, comprising a step of providing at least part of a textile article with a biopolymer, wherein at least part of said biopolymer comprises an electrically conductive material. The invention also relates to an electrically conductive composite textile article comprising a textile article and a biopolymer, wherein at least part of said biopolymer is provided with an electrically conductive material; and to ayarn, or a fabric, or a garment, consisting of, or essentially consisting of a biopolymer that can be produced by a microorganism, wherein at least part of said biopolymer is provided with an electrically conductive material.
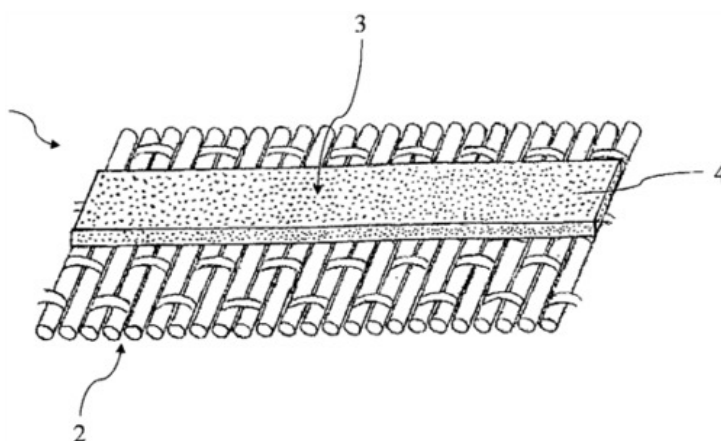

Figure 1

Antistatic fiber-foam shoe insoles, and a method of manufacturing the same

Patent number: US20210000219

Publication date: 2021-01-07

Applicant(s): TELEFONICA GERMANY

Inventor: LOYLEY DANIEL, FALKEN ROBERT, ZANOTTO FABIO

Abstract

This document discloses antistatic shoe insoles that include a flexible foam layer and antistatic filaments of textile material interspersed throughout the foam layer and extending passed or exposed at the surface of the shoe insole and methods of making such an antistatic shoe insole. The antistatic filaments are needle punched through the foam layer. The antistatic filaments may be any suitable antistatic material blended with any felt fiber such as wool fiber, cotton fiber, polyester fiber, or the like.
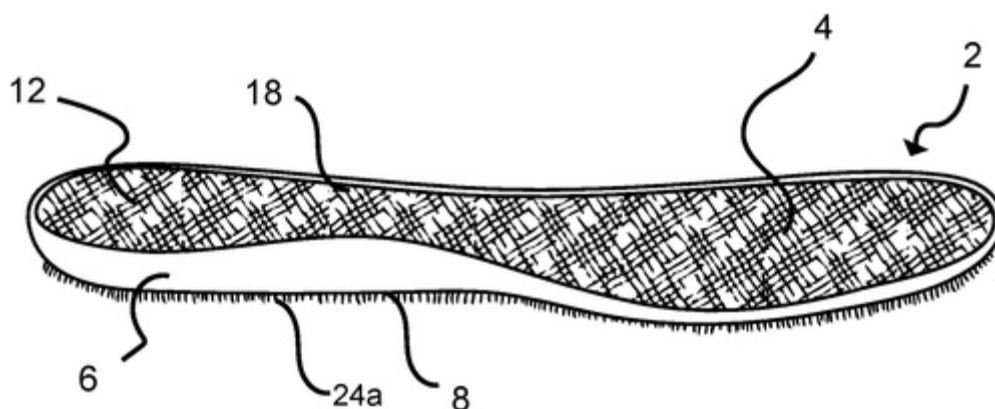
Assembly of electronic radio-identification tags, method for making said assembly, machine using said assembly and textile product comprising an electronic tag

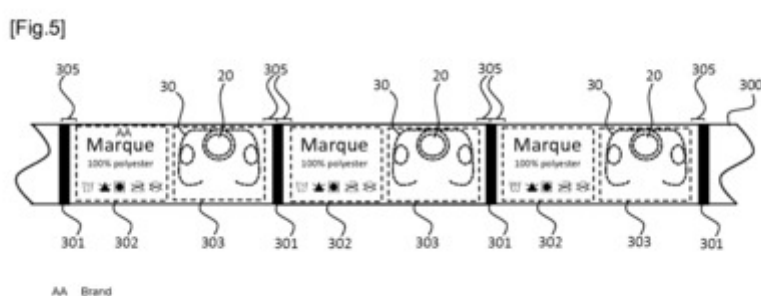Patent number: FR3097352

Publication date: 2020-12-18

Applicant(s):   Fenotag

Inventor: ELBAZ DIDIER

Abstract

The invention relates to a method for producing a strip of electronic radio-identification tags 300, comprising the steps of: providing a strip of fabric 310 containing reference markers 301; positioning an amplifier antenna 30 through sewing or embroidery; positioning an electronic radio-identification module 20; and printing information on a printing area 302. The antenna 30, the electronic module 20 and the printing area 302 are positioned with respect to the reference markers. The invention also relates to a set of electronic tags obtained using the method.

(From WO2020254751 A1)

[Fig.5]

AA Brand

Intelligent textile adapted for motion detection and/or deformation

Patent number: FR3088006

Publication date: 2020-05-08

Applicant(s): INRIA INSTITUT NATIONAL DE LA RECHERCHE EN INFORMATIQUE & EN AUTOMATIQUE

Inventor: PUGACH GANNA, DANEY DAVID

Abstract

A textile suitable for detecting movement and/or deformation comprises an electrically conductive fabric (8) which can expand in at least two directions, electrodes (12) arranged substantially regularly along the periphery of the fabric (8), a controller (14) designed to control the excitation of the electrodes (12) two by two according to a pattern such that all the electrodes (12) are successively excited, and to measure each time the voltage in the non-excited electrodes (12), and a computer (22) comprising a neural network inference engine and designed to receive the voltage measurements taken at the non-excited electrodes (12) in a given excitation cycle, in order to supply them to the neural network inference engine and to return a characteristic measurement of a movement having caused a deformation of the textile.
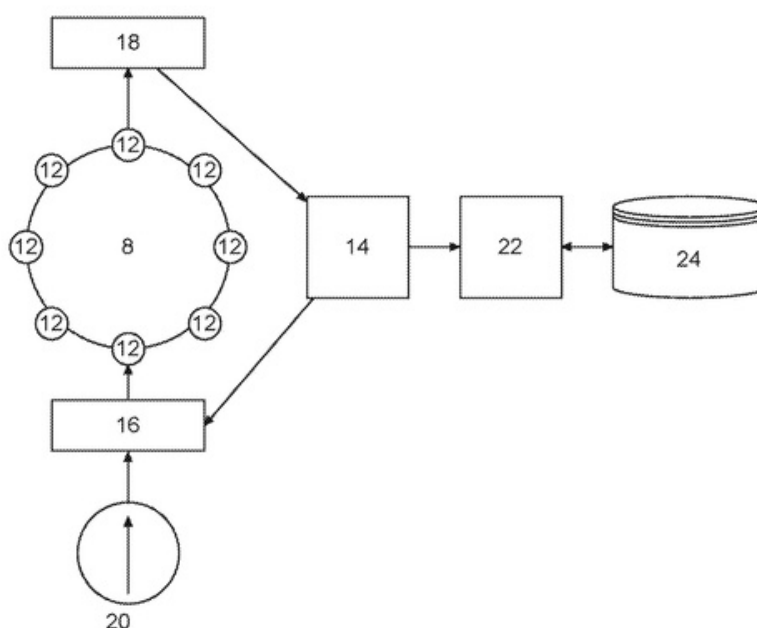
(From WO2020094628 A1)

Anti-ultraviolet health-preserving textile fabric

Patent number: WO2021/022448

Publication date: 2021-02-11

Applicant(s):   SHAOXING JINCHEN BIOTECHNOLOGY

Inventor: WANG LIZHANG

Abstract

Provided is an anti-ultraviolet health-preserving textile fabric, relating to the technical field of textiles, and specifically relating to an anti-ultraviolet health-preserving textile fabric. It contains a textile fabric body and a magnet; the uppermost layer of the textile fabric body is an anti-ultraviolet layer; the bottom layer of the textile fabric body is a silk layer; between the anti-ultraviolet layer and the silk woven layer are a wear-resistant layer, a breathable layer, an upper elastic layer, a magnetotherapy layer, and a lower elastic layer, in sequence from top to bottom; the upper elastic layer has the same structure as the lower elastic layer; a plurality of magnets are inlaid inside the magnetotherapy layer, corresponding horizontally to the plurality of magnets, and the horizontal separation distance between two adjacent magnets is the same. Upon using the described technical solution, the beneficial effects of the present utility model are: having an anti-ultraviolet effect, and magnets are inlaid in the textile fabric; the magnetic field generated by the magnets can adjust the anions and cations in the human body, thus promoting blood circulation and achieving a health-preserving effect.
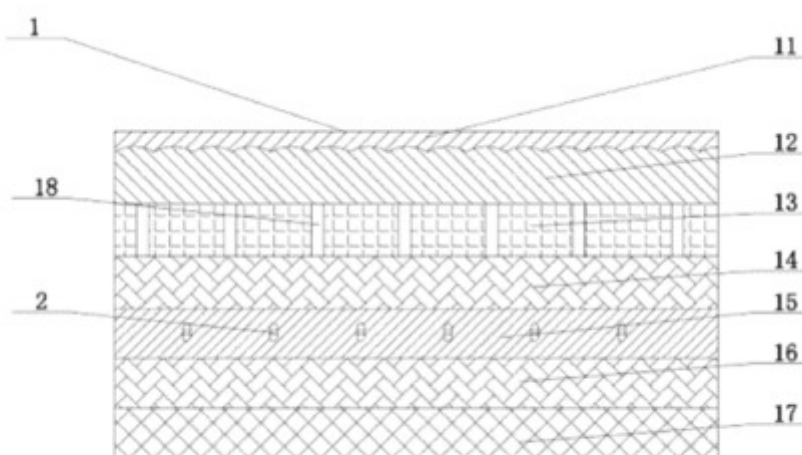

图 1