

Title (en)
ELECTRICALLY CONDUCTIVE POLYMER RIBBON AND POLYMER TISSUE ON THE BASIS OF ELECTRICALLY CONDUCTIVE POLYMER FIBERS, YARNS, THREADS AND CORDS FOR AREAL HEATING ELEMENTS

Title (de)
ELEKTRISCH LEITENDES POLYMERBAND UND POLYMERGEWEBE AUF DER BASIS VON ELEKTRISCH LEITENDEN POLYMERFASERN, GARNEN, ZWIRNEN UND SCHNÜREN FÜR FLÄCHENHAFTE HEIZELEMENTE, HEIZGEWEBE UND ÄHNLICHES UND VERFAHREN ZUR HERSTELLUNG DES FLÄCHENHAFTEN HEIZELEMENTES

Title (fr)
RUBAN POLYMÈRE ÉLECTROCONDUCTEUR ET TISSU POLYMÈRE À BASE DE FIBRES POLYMÈRES, DE FILS, DE FILS RETORS ET DE CORDONS ÉLECTROCONDUCTEURS POUR ÉLÉMENTS CHAUFFANTS, TISSUS CHAUFFANTS PLATS ET ANALOGUES, ET PROCÉDÉ DE PRODUCTION D'ÉLÉMENTS CHAUFFANTS PLATS

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Abstract (en)
[origin: WO2009135487A2] The objects of the invention are an electrically conductive polymer ribbon or polymer tissue on the basis of electrically conductive polymer fibers, yarns, threads and cords, preferably for areal heating elements, or a heating tissue, a method for producing an areal heating element by way of the polymer fibers, yarns, threads, cords, polymer ribbons and polymer tissue, particularly for space heaters, for clothing, and in the medical field, under cost-effective conditions. Individual fibers (1) of the yarns (2) of the polymer ribbon or polymer tissue (7) comprise electrically conductive carbon fibers (1a) and/or electrically conductive, modified polymer carbon fibers (1b) and/or electrically conductive, modified polymer silver carbon fibers (1c) and/or electrically non-conductive polymer fibers (1d), or natural fibers (1d), or monofilament fibers (1d), and/or electrically conductive, metal-modified polymer fibers (1f), and/or electrically non-conductive polymer fibers (1d), or natural fibers (1d) or monofilament fibers (1d), comprising a coating compound made of a coal dust / polymer mixture (1e), and/or a coating compound made of a silver / coal dust / polymer mixture (1e), and/or a coating compound made of a silver / polymer mixture (1g), and/or a silver coating (1h), wherein the electrically non-conductive polymer fibers (1d), or natural fibers (1d), or monofilament fibers (1d) may be configured as elastic fibers (1i). During the method for producing an areal heating element, electrically conductive fibers (1a, 1b, 1c, 1e, 1f, 1g, 1h) or knitted ribbons (4) or woven ribbons (7, 8) are disposed on a non-conductive textile carrier material (13) and fastened, wherein the knitted ribbons (4) and woven ribbons (7, 8) are prefabricated using weaving technology, knitting technology, or sewing technology. The field of application of the invention is the production of areal heating elements, particularly for space heaters, for clothing, and in the medical field.

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