

Title (en)
Covering material with shirred wires and method of manufacturing

Title (de)
Abdeckmaterial mit gerafften Drähten und Verfahren zu dessen Herstellung

Title (fr)
Matériau de recouvrement avec des fils plissés et procédé de fabrication

Publication
EP 0924363 A2 19990623 (DE)

Application
EP 98103469 A 19980227

Priority
DE 19756846 A 19971219

Abstract (en)
A covering material (I) has a flat plastic body (1) having a high extensibility in each direction and a stretchable metal insert composed of wires (2,3,12) which are gathered up in the direction of their longitudinal stretch. An Independent claim is included for a process for the fabrication of (I) by continuous forming of a flat plastics body (1), preferably by means of an extrusion press and/or calendaring with continuous forming of a stretchable metallic insert in the plastics body. The wires have a wavelike, meandering or zigzag form. A first set of wires (2) are normal to a second set of wires (B) and are not bound at their crossing points and/or the wire from one set are discontinuous at this point. The wires (2) are bonded to the wires (3) at the crossing points by welding, pressing, wrapping or interweaving to form a junction (11). The metal insert comprises at least a single wire (12) is contained with (1) such that as crossing points occur between wire segments and is laid out in a flat meander. The wires (2,3,12) are gathered up such that they have a moldability at least comparable to that of the plastic body (1) and preferably is at least 50% higher and have a low propensity to return to their original shape, preferably less than 5%. The wires are aluminum, copper having a diameter no greater than half that of the plastic body (1). Preferred Composition: The plastics body (1) has an extensibility of at least 10, preferably 20%; an elongation at break greater than 20%, a low resilience of no more than 5% and is UV resistant, water tight and/or water insoluble, weather and oxidation resistant and is preferably antistatic at 20-300 degrees C. The plastics body consists of one or more layers of optionally different materials whereby the metal insert is situated in at least one layer. The plastics body comprises thermoplastic elastomers, polyolefins, polyurethanes, mono- and copolymers of acrylonitrile, tetrafluoroethylene, vinyl chloride or bitumen and contains inorganic fillers, antioxidants, antistatic agents, pigments, gloss and coloring agents, preferably red pigment, plasticizer, binding agent, flame retardant and tacifiers. The plastics body is of a number of layers and has an outer layer whereby the first layer is preferably polyisobutylene, optionally mixed with bitumen and the second layer is a polyurethane, optionally modified with pigments and antistatic agents and the rear face of the plastic body is formed of adhesive, preferably of an adhesive coating coated with a protective film.

Abstract (de)
Die Erfindung betrifft ein Abdeckmaterial mit einem flächenhaften Kunststoffkörper (1), der in jeder Flächenrichtung eine hohe Dehnbarkeit aufweist, und einer streckbaren Metalleinlage, bei dem die Metalleinlage Drähte (2, 3; 12) aufweist, die, im wesentlichen in der Flächenebene, in Richtung ihrer Längserstreckung gerafft sind, sowie ein Verfahren zu dessen Herstellung. <IMAGE>

IPC 1-7
E04D 5/12; E04D 1/36; E04B 1/66

IPC 8 full level
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CPC (source: EP)
E04D 1/36 (2013.01); **E04D 5/12** (2013.01)

Citation (applicant)
• DE 2225358 A1 19721214
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• DE 3642063 A1 19870702 - BRAAS & CO GMBH [DE]

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EP1096077A1; FR2933998A1; US7971403B2; WO0131138A1

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