Method for producing a textile composite material and textile composite material produced according to said method

WO2017162310

Date of publication: 2017-09-28

Applicant(s): K+R Textil

Abstract

The invention relates to a method for producing a textile composite material with shrink properties, in particular heat shrink properties, preferably in the form of a shrinkable, in particular heat-shrinkable textile upholstery and/or covering material, preferably for seating furniture, to the textile composite material obtained therefrom and to the uses thereof.

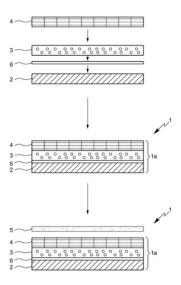


Fig. 1A

Production of textile composite material preforms

WO2017089086

Date of publication: 2017-06-01

Applicant(s): BMW

Abstract

The invention relates to a method for producing textile composite material preforms (30), particularly with or from one or more textile semi-finished products, by compression moulding a planar structure (10) of one or more textile composite materials (11, 12, 13), in which (i) the planar structure (10) is cut laterally into textile composite material sections (20) prior to compression moulding and (ii) these cut textile composite material sections (20) undergo compression moulding individually or collectively and particularly with one or more other textile composite material sections such that
b>as a result</br>
one or more textile composite material preforms (30) are fully or partially formed.

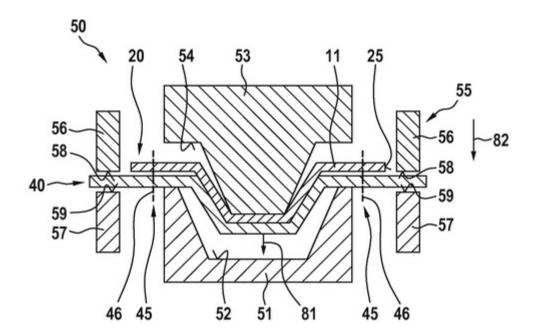


Fig. 8

Composite system and method for reinforcing, in particular, structures made from reinforced concrete or masonry comprising a curable or cured matrix and textile reinforcement grid constituting said system

WO2017017393

Date of publication: 2017-02-02

Applicant(s): Parexgroup

Abstract

The invention concerns a composite system for reinforcing, in particular, structures made from reinforced concrete or masonry comprising a curable or cured matrix and a textile reinforcement grid, and said two elements taken as such. The aim of the invention is for this system to make it possible to produce a cured composite structure having improved mechanical properties, both in the short term and in the long term (e.g. flexing behaviour, hardness, bending/compression resistance, durability, cohesion). This aim is achieved by the system of the invention in which the grid comprises at least one layer formed: - both from a framework consisting of flat warp yarns and weft yarns; - and from a network binding the framework; characterised in that the binding network is such that it ensures the geometric regularity and dimensional stability of the meshes of the framework, before the grid is applied to the structure to be reinforced. The invention also concerns a method for reinforcing, in particular, structures made from reinforced concrete or masonry, the composite structure obtained from this method, the dry and wet formulations of the curable matrix, and consolidated structures, in particular made from reinforced concrete or masonry

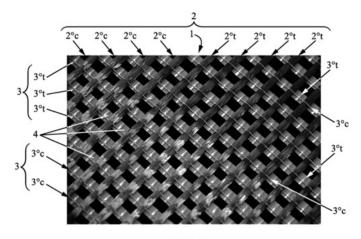


FIG. 1

Method for fabricating composite structures using combined resin film and dry fabric

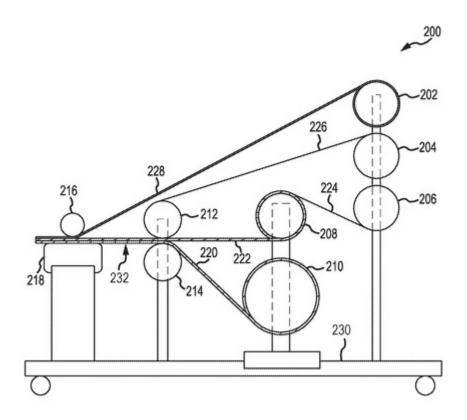
US2017225371

Date of publication: 2017-08-10

Applicant(s): UTC Aerospace Systems

Abstract

A method may include placing a dry fabric over a tool; pressing a first resin film over the dry fabric while the dry fabric is draped over the tool to create an outer layer of the laminate composite structural component; repeating the placing and pressing process until a desired thickness of the outer layer is achieved; compressing a second resin film and a dry fiber fabric between two rollers to tack the second resin film to the dry fiber fabric to create a resin-fabric sheet comprising a resin film layer and an dry fiber fabric layer; cutting the resin-fabric sheet to a pre-determined shape to create at least one resin-fabric preform; and draping a first resin-fabric preform over at least a portion of the outer layer, wherein one or more edges of the first resin-fabric preform overlap the outer layer to create an internal edge.



Light cured composite insole

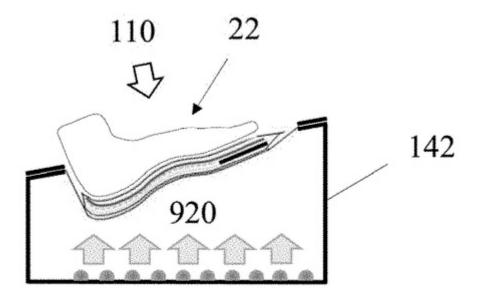
WO2017007533

Date of publication: 2017-01-12

Applicant(s): Light composites

Abstract

The present invention describes a shaped footwear device intended to be used as a supportive insole or orthotic and a system and methods for making the same. The footwear device includes a top foam layer, a light-cured composite material layer, and a bottom textile layer. The footwear device is created by conforming a pre-cured insole assembly to the plantar surface of a foot or foot mold and then exposing the pre-cured insole assembly to light to create a shaped footwear device with a light-cured composite material support plate.



Lighter-weight casing made of composite material and method of manufacturing same

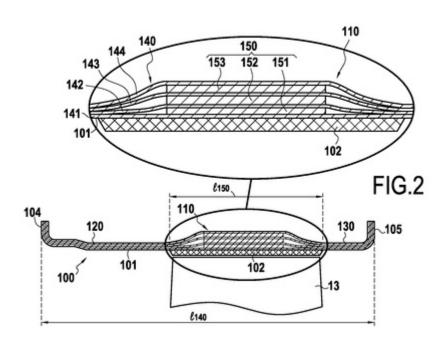
WO2017109403

Date of publication: 2017-06-29

Applicant(s): Safran

Abstract

A method of manufacturing a variable-thickness composite-material casing (100) for a gas turbine, comprises: – using three-dimensional or multi-layer weaving to create a fibrous texture (140) in the form of a strip, – winding the fibrous texture (140) in several superposed layers (141, 142, 143, 144) onto a mandrel having a profile corresponding to that of the casing that is to be manufactured, so as to obtain a fibrous preform of a shape corresponding to that of the casing that is to be manufactured, – densifying the fibrous preform using a matrix. During the winding of the fibrous texture (140) onto the mandrel, a textile strip (150) is interposed between the adjacent turns of the fibrous texture, the textile strip (150) having a width smaller than the width of the fibrous texture (140) and delimiting a retention zone of the casing.



A fiber-impregnating system, a pultrusion device and a method of producing composite material of pultrusion

WO2017144532

Date of publication: 2017-08-31

Applicant(s): Covestro

Abstract

The present invention relates to a fiber-impregnating system, comprising an infusion box (100) provided with a mold cavity that has an infusion cavity (102) for fibers to pass, an infusion hole (103) for resin infusion, and a resin passage (107) for communicating with the infusion cavity and the infusion hole, wherein the mold cavity further includes a compression segment (104) upstream of the infusion cavity, the compression segment having an entrance with a depth greater than or equal to a depth of its exit, the depth of the entrance and exit of the compression segment ranging from 0 to 2 mm. Moreover, the present invention also relates to a pultrusion device provided with the said fiberimpregnating system, and a method of producing composite material of pultrusion with the pultrusion device.

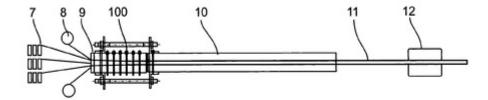


Fig. 8

Thermoplastic fiber, hybrid yarn, fiber perform and method for producing fiber performs for fiber composite components

US2017246814

Date of publication: 2017-08-31

Applicant(s): Faserinstitut Bremen

Abstract

A method for producing a fiber preform or semi-finished textile product comprises providing a fiber preform or semi-finished textile product comprising at least one thermoplastic fiber. The thermoplastic fiber has a core constructed of a first material, a shell constructed of a second material positioned to surround the core, and magnetic particles that are one of mainly arranged in the shell, almost exclusively arranged in the shell, and exclusively arranged in the shell. Continually adding the fiber preform or semi-finished textile product with simultaneous heating thereof in continuous passing through or passing by a magnetic induction heating device or the same by way of a relative movement. Fixing the fiber preform or semi-finished textile product by allowing the fiber preform or semi-finished textile product to rigidify.

