

Title (en)

Process for the production of woven glass fabric coated with a thermoplastic polymer

Title (de)

Verfahren zur Herstellung eines mit thermoplastischem Kunststoff beschichteten Glas-Gittergewebes

Title (fr)

Procédé de production d'un tissu de verre textile revêtu avec un polymère thermoplastique

Publication

EP 0990626 B1 20030827 (DE)

Application

EP 99112230 A 19990625

Priority

DE 19844387 A 19980928

Abstract (en)

[origin: EP0990626A1] Coating a glass fiber netting with thermoplastic polymer comprises passing the netting through an immersion bath of molten thermoplastic material and then through a blower to clear the mesh openings followed by a hot mangle station before cooling and winding. The netting is a woven fabric, with glass filaments in the warps and wefts as glass yarns or rovings, in a thickness of 22-2400 tex. The glass filaments can also contain other synthetic or carbon fibers. The plastics coating is applied at a rate of 10-30 wt% of the total weight, in a structure which can form a film over the woven netting as a reinforced film material. Sand can be bonded partially into the cladding. An Independent claim is included for a production process where the woven netting (1) is immersed in a bath (3) of molten thermoplastic cladding material (4), and mangled (6,7) while hot. Preferred Features: The hot plastics cladding material can be applied from an extruder as a paste over the woven netting, with a scraper to remove any surplus cladding. The mesh openings can be cleared by an air blower (8), and preferably with hot air (9). The plastics cladding can also be applied to the woven netting as a powder, such as by an electronic adhesion coating process, to be melted in a furnace shaft or a heated tunnel. The coated netting is passed through a cooling stretch (10). The glass fiber material can be clad with a thermoplastics before weaving into the netting fabric, so that the glass fibers bond together when passed between heated rollers. The glass fiber filaments can be clad with the thermoplastics material through an extruder. Hot sand is scattered over the surface of the finished and clad woven netting material.

IPC 1-7

C03C 25/26

IPC 8 full level

C03C 25/26 (2006.01); **D03D 15/00** (2006.01); **D06N 3/00** (2006.01); **D06N 7/00** (2006.01)

CPC (source: EP)

D03D 15/267 (2021.01); **D06N 3/0022** (2013.01); **D06N 3/0088** (2013.01); **D06N 3/0093** (2013.01); **D06N 7/00** (2013.01)

Citation (examination)

EP 0985756 A1 20000315 - NITTO BOSEKI CO LTD [JP]

Cited by

EP1693503A1; CN106868690A; EP1707652A1; CN104153137A; CN106847387A; DE102010010748A1; DE102010010748B4; NO344769B1; WO2006103124A1; WO232602A3; WO03087466A1; US11820705B2

Designated contracting state (EPC)

AT CH DE ES IT LI

DOCDB simple family (publication)

EP 0990626 A1 20000405; **EP 0990626 B1 20030827**; AT E248134 T1 20030915; DE 19844387 A1 20000330; DE 19844387 C2 20020307; DE 59906753 D1 20031002; ES 2201600 T3 20040316

DOCDB simple family (application)

EP 99112230 A 19990625; AT 99112230 T 19990625; DE 19844387 A 19980928; DE 59906753 T 19990625; ES 99112230 T 19990625