

Title (en)
METHOD FOR HYDRODYNAMICALLY SOLIDIFYING AN ESSENTIALLY HOMOGENOUS LAYER MADE OF FIBRES OF ANY PARTICULAR TYPE AND SYSTEM FOR CARRYING OUT SAID METHOD

Title (de)
VERFAHREN ZUM HYDRODYNAMISCHEN VERFESTIGEN EINER IM WESENTLICHEN HOMOGENEN SCHICHT AUS FASERN BELIEBIGER ART UND ANLAGE ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)
PROCEDE POUR CONSOLIDER DE MANIERE HYDRODYNAMIQUE UNE COUCHE, SENSIBLEMENT HOMOGENE, CONSTITUEE DE FIBRES DE TOUT TYPE ET INSTALLATION POUR LA MISE EN OEUVRE DUDIT PROCEDE

Publication
EP 1668177 A1 20060614 (DE)

Application
EP 04766703 A 20040903

Priority
• EP 2004052040 W 20040903
• DE 10344672 A 20030925

Abstract (en)
[origin: WO2005031056A1] A finite product made of nonwoven material is obtained and the edges thereof are completely solidified, however the central area remains voluminous. This is achieved by advantageous hydrodynamic hardening devoid of binding agents, whereby the nonwoven material exiting from a nonwoven material placement device, such as a carding device, is initially solidified at least on the surface thereon and previously solidified and re-placeable nonwoven material is fully solidified thereon in a continuous double-stepped hydrodynamic hardening process exclusively along longitudinal strips which are arranged at a distance and over-lapping transversal strips which are also arranged at a distance by means of a plurality of rows of water jets. The nonwoven material is cut after treatment in the positions where full solidification occurs, whereupon products are created.

IPC 1-7
D04H 1/46; **D04H 3/10**; **D04H 13/00**

IPC 8 full level
D04H 1/495 (2012.01); **D04H 3/11** (2012.01); **D04H 13/00** (2006.01)

CPC (source: EP US)
D04H 1/495 (2013.01 - EP US); **D04H 3/11** (2013.01 - EP US); **D04H 18/04** (2013.01 - EP US)

Citation (search report)
See references of WO 2005031056A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2005031056 A1 20050407; AT E348208 T1 20070115; CN 101124357 A 20080213; CN 101124357 B 20110907; DE 10344672 A1 20050414; DE 502004002336 D1 20070125; EP 1668177 A1 20060614; EP 1668177 B1 20061213; ES 2279428 T3 20070816; JP 2007506870 A 20070322; PL 1668177 T3 20070531; US 2007067972 A1 20070329; US 7310860 B2 20071225

DOCDB simple family (application)
EP 2004052040 W 20040903; AT 04766703 T 20040903; CN 200480027843 A 20040903; DE 10344672 A 20030925; DE 502004002336 T 20040903; EP 04766703 A 20040903; ES 04766703 T 20040903; JP 2006527390 A 20040903; PL 04766703 T 20040903; US 57353004 A 20040903