

Title (en)  
HYDROENTANGLED MICROFIBRE MATERIAL AND METHOD FOR ITS MANUFACTURE

Title (de)  
WASSERSTRAHLVERFESTIGTES MIKROFASERMATERIAL UND SEINE HERSTELLUNG

Title (fr)  
MATIERE EN MICROFIBRES ENCHEVETREES PAR PROCEDE HYDRAULIQUE ET PROCEDE DE FABRICATION

Publication  
**EP 1474555 B1 20110420 (EN)**

Application  
**EP 03703630 A 20030211**

Priority  
• SE 0300220 W 20030211  
• SE 0200476 A 20020215

Abstract (en)  
[origin: WO03069038A1] The invention relates to a method for manufacturing a microfibre material and to a microfibre material manufactured by means of hydraulic entanglement. The method comprises to form a fibre web containing microfibres and, thereafter, to subject the fibre web to hydraulic entanglement. At least a majority of the microfibres are provided in the form of microfibres having been stretched to orientation and having shell surfaces substantially completely covered by a hydrophobic lubricating layer. The method further comprises to disperse the microfibres in a foamed aqueous medium before the forming by means of the hydrophilic lubricating layer in interaction with the foamed aqueous medium in order to form a substantially homogenous fibre dispersion, wherein the microfibres in a straightened condition have a fibre thickness smaller than 0.5 denier and a fibre length larger than 5 mm both in the fibre dispersion and in the microfibre material. In the microfibre material a majority of the microfibres are stretched to orientation, exhibit a cross-sectional shape which substantially can be described by an arc or several successive arcs, and are uniformly distributed in a x, y-plane of the microfibre material.

IPC 8 full level  
**D01F 11/08** (2006.01); **D06M 11/00** (2006.01); **D06M 13/00** (2006.01); **D21F 11/00** (2006.01); **D21H 15/02** (2006.01); **D04H 1/42** (2012.01); **D04H 1/46** (2012.01)

CPC (source: EP US)  
**D04H 1/43838** (2020.05 - EP US); **D04H 1/43916** (2020.05 - EP US); **D21F 11/002** (2013.01 - EP); **D21H 15/02** (2013.01 - EP); **D04H 1/425** (2013.01 - EP); **D04H 1/4382** (2013.01 - EP); **D04H 1/4391** (2013.01 - EP); **D04H 1/43912** (2020.05 - EP US); **D04H 1/492** (2013.01 - EP)

Cited by  
US9617685B2; US9605126B2

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 PT SE SI SK TR

DOCDB simple family (publication)  
**WO 03069038 A1 20030821**; AT E506478 T1 20110515; AU 2003206337 A1 20030904; DE 60336798 D1 20110601; EP 1474555 A1 20041110; EP 1474555 B1 20110420; EP 1474555 B8 20111005; ES 2362723 T3 20110712; SE 0200476 D0 20020215

DOCDB simple family (application)  
**SE 0300220 W 20030211**; AT 03703630 T 20030211; AU 2003206337 A 20030211; DE 60336798 T 20030211; EP 03703630 A 20030211; ES 03703630 T 20030211; SE 0200476 A 20020215