Title (en)

FIBRE MESHES WITH CONTROLLED PORE SIZES

Title (de)

FASERNETZE MIT KONTROLLIERTEN PORENGRÖSSEN

Title (fr)

MAILLES DE FIBRES À TAILLES DE PORES CONTRÔLÉES

Publication

EP 3483321 A1 20190515 (EN)

Application

EP 17201061 A 20171110

Priority

EP 17201061 A 20171110

Abstract (en)

A method for controlling stable pore size, pore shape, overall porosity, mat thickness or mat volume of a random fibre network, comprising a stack of layers of randomly distributed fibres in form of a non-woven mat, with average fibre thickness (d), with a variety of fibre segments between cross-links along the fibres with average fibre segment length (ls) between cross-links, at which different fibres are fixed, should be simplified and made more cost-efficient. This is reached by providing a fibre network, wherein the aspect ratio between fibre segment length (ls) and the fibre diameter (d) is greater than or equal to 5, clamping of the fibre network at at least one margin of the fibre network and application of a tension in at least one direction (x, y) of the fibre network from at least one side, reaching a stretch-expansion of the fibre network due to the inclination of some fibres towards the direction which is perpendicular to the axis of loading, by buckling of fibre segments in the out-of-plane direction, leaving network integrity and fibres undamaged.

IPC 8 full level

D04H 1/4291 (2012.01); **D04H 1/4334** (2012.01); **D04H 1/435** (2012.01); **D04H 1/4358** (2012.01); **D04H 1/728** (2012.01)

CPC (source: EP)

D04H 1/4291 (2013.01); **D04H 1/4334** (2013.01); **D04H 1/435** (2013.01); **D04H 1/4358** (2013.01); **D04H 1/728** (2013.01)

Citation (applicant)

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Designated extension state (EPC)

BA ME

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