

Title (en)

METHOD OF FORMING A 3-DIMENSIONAL FIBER AND A WEB FORMED FROM SUCH FIBERS

Title (de)

VERFAHREN ZUR VERFORMEN EINER DREIDIMENSIONELLEN FASER UND AUS DIESEN FASERN HERGESTELLTE BAHN

Title (fr)

PROCEDE DE FABRICATION D'UNE FIBRE TRIDIMENSIONNELLE ET TOILE CONSTITUEE DE CETTE FIBRE

Publication

EP 1532298 A1 20050525 (EN)

Application

EP 03791601 A 20030724

Priority

- US 0323147 W 20030724
- US 23205902 A 20020830

Abstract (en)

[origin: US2004043214A1] A method of forming 3-dimensional fibers is disclosed along with a web formed from such fibers. The method includes the steps of co-extruding a first component and a second component. The first component has a recovery percentage R1 and the second component has a recovery percentage R2, wherein R1 is higher than R2. The first and second components are directed through a spin pack to form a plurality of continuous molten fibers. The molten fibers are then routed through a quenching chamber to form a plurality of continuous cooled fibers. The cooled fibers are then routed through a draw unit to form a plurality of continuous, solid linear fibers. The solid fibers are then accumulated and stretched by at least about 50 percent. The plurality of stretched fibers are then cut and allowed to relax such that a plurality of 3-dimensional, coiled fibers is formed.

IPC 1-7

D01F 8/06; **D01F 8/12**; **D01F 8/14**; **D01F 8/16**; **D04H 3/14**

IPC 8 full level

A61F 13/15 (2006.01); **A61F 13/49** (2006.01); **A61F 13/53** (2006.01); **D01F 8/04** (2006.01); **D01F 8/06** (2006.01); **D01F 8/12** (2006.01); **D01F 8/14** (2006.01); **D01F 8/16** (2006.01); **D02G 1/18** (2006.01); **D02G 3/04** (2006.01); **D02J 13/00** (2006.01); **D04H 1/40** (2006.01); **D04H 1/42** (2006.01)

CPC (source: EP KR US)

D01D 5/30 (2013.01 - KR); **D01F 8/06** (2013.01 - EP KR US); **D01F 8/12** (2013.01 - EP KR US); **D01F 8/14** (2013.01 - EP KR US); **D01F 8/16** (2013.01 - EP KR US); **D02G 1/18** (2013.01 - EP KR US); **D04H 1/4291** (2013.01 - EP KR US); **D04H 1/43828** (2020.05 - EP KR US); **D04H 1/43832** (2020.05 - EP KR US); **D04H 1/43835** (2020.05 - EP KR US); **D04H 1/43838** (2020.05 - EP KR US); **D04H 1/43912** (2020.05 - KR); **D04H 1/43918** (2020.05 - EP KR US); **D04H 1/43912** (2020.05 - EP US); **Y10T 428/2924** (2015.01 - EP US); **Y10T 428/2929** (2015.01 - EP US); **Y10T 428/2931** (2015.01 - EP US); **Y10T 442/637** (2015.04 - EP US); **Y10T 442/638** (2015.04 - EP US); **Y10T 442/641** (2015.04 - EP US)

Citation (search report)

See references of WO 2004020709A1

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

US 2004043214 A1 20040304; AR 041041 A1 20050427; AU 2003256753 A1 20040319; BR 0313446 A 20050712; EP 1532298 A1 20050525; JP 2005537403 A 20051208; KR 20060006759 A 20060119; MX PA05001641 A 20050425; WO 2004020709 A1 20040311

DOCDB simple family (application)

US 23205902 A 20020830; AR P030103046 A 20030822; AU 2003256753 A 20030724; BR 0313446 A 20030724; EP 03791601 A 20030724; JP 2004532820 A 20030724; KR 20057002206 A 20050207; MX PA05001641 A 20030724; US 0323147 W 20030724