

Title (en)

METHOD FOR MELT SPINNING, STRETCHING AND WINDING A MULTIFILAMENT THREAD AND DEVICE FOR CARRYING OUT THE METHOD

Title (de)

VERFAHREN ZUM SCHMELZSPINNEN, VERSTRECKEN UND AUFWICKELN EINES MULTIFILEN FADENS SOWIE EINE VORRICHTUNG ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ DE FILAGE PAR FUSION, D'ÉTIRAGE ET D'ENROULEMENT UN FIL MULTIFILAMENT ET DISPOSITIF DE MISE EN OEUVRE DE CE PROCÉDÉ

Publication

**EP 2318577 B1 20120118 (DE)**

Application

**EP 09781588 A 20090806**

Priority

- EP 2009060246 W 20090806
- DE 102008039982 A 20080827

Abstract (en)

[origin: WO2010023081A1] The invention relates to a method for melt spinning, stretching and winding a multifilament thread to form an FDY yarn, and a device for carrying out the method. First, a plurality of filaments made from a thermoplastic melt are extruded, cooled to a temperature below the glass transition temperature of the plastic material, and combined to form a filament bundle with no addition of a preparation fluid. Then, the filament bundle is drawn off at a speed of greater than 1,500 m/min, heated to a temperature above the glass transition temperature of the thermoplastic material and stretched at a stretching speed of greater than 4,000 m/min. The filament bundle is led through a hot air atmosphere of a heating tube for providing non-contact heating. Then, the filament bundle is prepared with a preparation fluid and the thread is wound into a coil. In the device according to the invention, the preparation device is disposed downstream of the heating means in the thread direction, wherein the heating means, which is a heating tube with a hot air atmosphere for non-contact heating of the filament bundle, is disposed between the drawing-off galete and the stretching galete.

IPC 8 full level

**D01D 5/12** (2006.01); **D01D 13/02** (2006.01)

CPC (source: EP)

**D01D 5/12** (2013.01); **D01D 10/02** (2013.01); **D01D 13/02** (2013.01)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

**WO 2010023081 A1 20100304**; AT E541965 T1 20120215; CN 102131965 A 20110720; CN 102131965 B 20120905; EP 2318577 A1 20110511; EP 2318577 B1 20120118; JP 2012500909 A 20120112; JP 5523462 B2 20140618

DOCDB simple family (application)

**EP 2009060246 W 20090806**; AT 09781588 T 20090806; CN 200980133096 A 20090806; EP 09781588 A 20090806; JP 2011524303 A 20090806