

Title (en)

Process of manufacturing core-sheath composite fiber

Title (de)

Verfahren zur Herstellung von Kern-Mantel-Kompositfasern

Title (fr)

Procédé pour la fabrication de fibres composites du type âme-gaine

Publication

EP 1600534 A1 20051130 (EN)

Application

EP 04012575 A 20040527

Priority

EP 04012575 A 20040527

Abstract (en)

A process of manufacturing core-sheath composite fiber includes the steps of: preparing hollow fiber in a form of filament of which some parts forms communicating pores from an outer surface of the fiber to a hollow portion thereof, or in a form of filament segment with open ends; sealing adjacent porous parts or open ends of the same filament respectively in pressure containers and vacuum containers; adding filling materials into pressure containers, and keeping the porous parts or open ends completely immersed in the filling materials; pressurizing the pressure containers using compressed gas, and evacuating the vacuum containers, then the filling materials being absorbed through the communicating pores or opens into the hollow portion of the fiber. During the process of the present invention to manufacture core-sheath composite fiber, most areas of outer surface of the fiber do not contact the filling materials, thus most areas of the outer surface is clean, which is advantageous for post treating or use. The process of the present invention is applicable for filling various materials at a broad range temperature. <IMAGE>

IPC 1-7

D01F 8/04; D01F 8/14; D01D 5/24; D01D 5/34; D06M 23/00

IPC 8 full level

D01D 5/24 (2006.01); **D01D 5/34** (2006.01); **D01F 8/04** (2006.01); **D01F 8/14** (2006.01); **D06M 23/00** (2006.01)

CPC (source: EP)

D01D 5/24 (2013.01); **D01D 5/34** (2013.01); **D01F 8/04** (2013.01); **D01F 8/14** (2013.01); **D06M 23/00** (2013.01)

Citation (search report)

- [AD] US 5538735 A 19960723 - AHN SAM S [US]
- [AD] US 6021822 A 20000208 - IZAWA HAJIME [JP], et al
- [X] DATABASE WPI Section Ch Week 198716, Derwent World Patents Index; Class A89, AN 1987-113773, XP002304445

Cited by

CN102665782A; CN116288806A; WO2011035220A1

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)

EP 1600534 A1 20051130

DOCDB simple family (application)

EP 04012575 A 20040527