

Title (en)

HIGH-STRENGTH POLYETHYLENE TEREPHTHALATE YARN AND METHOD FOR PRODUCING THE SAME

Title (de)

HOCHFESTES POLYETHYLENTEREPHTHALATGARN UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

FIBRE DE POLYÉTHYLÈNE TÉRÉPHTALATE À RÉSISTANCE ÉLEVÉE ET SON PROCÉDÉ DE FABRICATION

Publication

EP 3686326 A1 20200729 (EN)

Application

EP 18858587 A 20180903

Priority

- KR 20170122246 A 20170922
- KR 2018010211 W 20180903

Abstract (en)

Disclosed are a PET fiber having an intrinsic viscosity of 1.1 dl/g or higher and a tensile strength of 10 g/d or higher, and a manufacturing method therefor. A manufacturing method according to the present invention includes the steps of: melting a polyethylene terephthalate chip having an intrinsic viscosity of 1.4 to 1.7 dl/g to prepare a spinning melt; discharging the spinning melt through a nozzle of a spinning pack; heating the spinning melt just before being discharged from the nozzle by means of a heat source of 300 to 500 °C located immediately below the nozzle; converging a plurality of filaments formed by the discharging to form a multifilament; and drawing the multifilament, wherein a temperature of the spinning pack is maintained at 280 to 305 °C.

IPC 8 full level

D01F 6/62 (2006.01); **D01D 5/084** (2006.01); **D01D 5/098** (2006.01)

CPC (source: EP KR US)

D01D 5/084 (2013.01 - EP KR US); **D01D 5/098** (2013.01 - EP KR US); **D01F 6/62** (2013.01 - EP KR US); **D10B 2401/063** (2013.01 - KR)

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3686326 A1 20200729; **EP 3686326 A4 20211006**; CN 111148866 A 20200512; JP 2020531710 A 20201105; JP 2021120501 A 20210819; KR 20190034083 A 20190401; US 2020216980 A1 20200709; WO 2019059560 A1 20190328

DOCDB simple family (application)

EP 18858587 A 20180903; CN 201880061237 A 20180903; JP 2020531410 A 20180903; JP 2021086074 A 20210521; KR 2018010211 W 20180903; KR 20180104442 A 20180903; US 201816640771 A 20180903